


1950

A Study of Spelling Growth in Two Different Teaching Procedures

Richard Norbert Louis
Central Washington University

Follow this and additional works at: <http://digitalcommons.cwu.edu/etd>

 Part of the [Educational Assessment, Evaluation, and Research Commons](#), and the [Educational Methods Commons](#)

Recommended Citation

Louis, Richard Norbert, "A Study of Spelling Growth in Two Different Teaching Procedures" (1950). *Electronic Theses*. Paper 53.

This Thesis is brought to you for free and open access by the Student Scholarship and Creative Works at ScholarWorks@CWU. It has been accepted for inclusion in Electronic Theses by an authorized administrator of ScholarWorks@CWU.

A STUDY OF SPELLING GROWTH IN TWO
DIFFERENT TEACHING PROCEDURES

by

Richard Norbert Louis

A thesis submitted in partial fulfillment of the
requirements for the degree of Master of
Education in the Graduate School
of the Central Washington
College of Education

August 1950

A thesis submitted in partial fulfillment of the requirements
for the Degree of Master of Education, in the Graduate School of
the Central Washington College of Education.

APPROVED:

Mabel T. Anderson, Chairman

Dr. J. Wesley Crum

Ann C. Lembesis

ACKNOWLEDGMENTS

Sincere acknowledgment is made to Dr. Charles W. Saale whose untiring efforts have made the completion of this thesis possible.

The writer is also indebted to Mr. Morgen Owings, Superintendent of City Schools, Chelan, Washington, who gave permission for the study to be conducted. Special thanks are extended to Mrs. Lydia Hartzell and Miss Violet Lindquist in whose rooms this study was conducted.

TABLE OF CONTENTS

CHAPTER	PAGE
I Introduction and Procedure	1
II Organization of Data Gathered	8
III Summary and Conclusions	83
Purpose of the Study	83
Procedure	84
Findings of the Study	87
Educational Implications	93
Recommendations	94
Limitations	94
Bibliography	95

Chapter I

INTRODUCTION

The primary purpose of this study is to determine the amount of spelling growth made by children in two distinct teaching procedures. These two procedures which are being studied and evaluated are the "learning of spelling by listening," and the "learning of spelling by the pre-test method." The most widely accepted objective for teaching spelling is to enable the pupils to spell the words which they need in actual writing situations. Since spelling is socially and educationally significant it is the responsibility of the school to determine the best methods possible to enable children to acquire a high degree of proficiency in spelling.

The treatment of the teaching of spelling has an interesting history. About 1700 the NEW ENGLAND PRIMER made its first appearance in the colonial schools and was distinctly religious in content.¹ Although it did not set up a definite program for the teaching of spelling, the focus was drawn to the importance of spelling in the curriculum. Near the end of the eighteenth century other spellers appeared which were less religious in content than the NEW ENGLAND PRIMER. The first American spelling textbook was Noah Webster's

1. Cubberley, E. P., Public Education in the United States. Boston, Houghton Mifflin, 1934, 41-47.

famous "blue-backed" speller, published in 1783.¹ This book inaugurated a systematic attack upon the teaching of spelling. No scientific evidence was used to determine the selection of words; the number of words or the grade level at which the words were to be taught.² Parker revealed that one speller as late as 1915 included eight thousand words in the content. Research now indicates that the efficient learning of four or five thousand words will give an individual adequate command of practically all the words needed in the common spelling activities of daily life.³

In 1894, Dr. Rice,⁴ a pioneer in educational research, conceived the idea of measuring the efficiency of the school by testing the ability achieved of the pupils enrolled in various school subjects. Spelling was one area chosen for investigation. He found that the school had little to do with the child's ability to spell; that pupils who spent only ten minutes a day on spelling could spell as well as those who spent forty minutes; and that drill work in the direct teaching of spelling was useless.

Another investigation made by Dr. Cornman, early in the century, showed that nothing was gained by direct drill work in spelling, and that the incidental method of teaching spelling

-
1. Parker, C. S., The History of Modern Elementary Education. Boston, Ginn and Company, 1912, 80-83.
 2. Parker, C. S., Types of Elementary Teaching and Learning. Boston, Ginn and Company, 1923, 53.
 3. McKee, Paul, Language in the Elementary School. Boston, Houghton Mifflin, 1939, 332.
 4. Rice, J. M., "The Futility of the Spelling Grind." Forum. 1897. 23:163-72, 409-19.

1

was as efficient as the systematic method. Although the work of Rice and Cormman influenced research in this area, the conclusions drawn by them are not generally accepted today as being valid.

2 3

Studies by Wallin and Winch showed that the use of direct and organized methods of teaching spelling were superior to the incidental method.

During the period of 1900-1910 spelling lost much of its status from the standpoint of a school subject. Spelling was not included in the curriculum until later when incidental teaching of it came into prominence. It was taught in correlation and integration with other subjects of the curriculum.

Beginning about 1910 and continuing up to the present time there has been an extended period of research in the teaching of spelling. This research has discovered the words which are most important for the pupil to learn to spell. It has also discovered an efficient method of teaching spelling. This emphasis on research has undoubtedly created a new view of the importance of the subject and has returned it to prominence as a separate subject in the elementary curriculum.⁴

Modern textbooks in spelling do not agree as to the best methods of teaching spelling. Some stress techniques, while others use them but to a small degree. Moreover, it should be

-
1. Cormman, O. P., Spelling in the Elementary School; From, McKee, Paul, Language in the Elementary School. Boston, Houghton Mifflin Company, 1936.
 2. Wallin, J. E., Spelling Efficiency in Relation to Age, Grade, and Sex. Baltimore, Warwick and York.
 3. Winch, W. H., "Experimental Researches on Learning to Spell." Journal of Educational Psychology. Vol. 4:524-37, 579-92.
 4. McKee, Paul, Language in the Elementary School. Boston, Houghton Mifflin Company, 1939, 333.

borne in mind that certain general principles are to be applied regardless of the method used. These include:

1. Provision should be made for a direct attack upon spelling as such with the elimination of the incidental method.
2. The number of words to be taught in any given day or lesson should not be large.
3. There should be little need for the daily spelling lesson to consume more than fifteen minutes.
4. The teaching of rules should not be over-emphasized.
5. The time spent on any given lesson should be equally distributed.

Nevertheless, authorities are of the opinion that spelling should be taught in a systematic and direct approach. Likewise they are agreed that some children learn to spell some words incidentally; albeit, they do not accept the incidental method as a means of accomplishing superior results in the teaching of spelling. To this effect, Horn says, "Investigation of the difference between scores on tests upon studied and unstudied words of like standard accuracy show that the more difficult the word the greater the superiority of direct study. "...investigation of the progress made during the school year under competent direct teaching show increases in accuracy that far exceed any yet reported for incidental teaching alone."¹

The time allotment for spelling has been reduced to fifteen minutes a day when it is taught on a daily basis in a week's

1. Horn, E., "Spelling." Encyclopedia of Educational Research. New York, Macmillan Company, 1950, 1174-75.

1

block of time. Tidyman says, "The important thing is the way in which the time is spent." Both Dr. Ernest Horn and Dr. Thomas Horn state that the time allotted for the study of spelling in excess of sixty minutes a week may be spent more advantageously in other areas, and, in classes of pupils with better-than-average ability, the time allotted to study of spelling may be further² reduced.

The teaching of rules in spelling has lost educational significance in recent years. This may be attributed to experimental studies in these areas. Investigators have presented the most valuable rules in terms of possible applications among words to be taught. There is no certainty that the learning and application of the rules will remove the difficulty the child may have³ in learning the words. Studies by Duboff and Smith show that only a relatively small percentage of the errors made by pupils are covered by appropriate rules. In a great majority of cases the rule, if correctly applied, will not relieve the difficulty. Future investigation may show the need for studying certain spelling rules; however, until such research is available less emphasis will be given to the teaching of rules.

-
1. Tidyman, W. F., The Teaching of Spelling. Yonkers, New York. World Book Company, 1922.
 2. Horn, E., "Spelling." op. cit: Horn, Thomas, D., "The Effect of the Corrected Test on Learning to Spell." The Elementary School Journal. The University of Chicago Press, January, 1947.
 3. Duboff, Sarah, Spelling Errors in Relation to Rules. Thesis. Teachers College, Greeley, Colorado, 1932. Masters, H., "Possible Value of Four Spelling Rules." Elementary English Review. September, 1928, 212-19.

Procedure

The procedure followed in this study consisted of using two sections of fifth grade students. There were fifty-six children involved in this study, one section was designated as "Group A," the other section as "Group B." The children were not grouped or segregated according to their intelligence quotients but these two groups were very similiar in ability.

The students in "Group A" pursued the test-study-test method of learning spelling. The procedure used with the group was:

- I. Monday: The teacher distributed ditto sheets which contained the spelling words for that week. Each week's lesson consisted of twenty-five words, five of which were review words. As the students observed the ditto sheets, the teacher pronounced each word and the student re-pronounced each word in unison. This was followed by a pre-test. The teacher pronounced each word, used each word in a sentence, and then pronounced the word for the second time. At the second pronmuciation the students wrote the word. The pupils corrected their own papers as the teacher spelled the words orally. The remainder of the period was spent in studying words missed in the pre-test.
- II. Tuesday: Students used the entire period to study on those words which they missed in the pre-test of Monday. The study procedure involved the actual writing of these words.
- III. Wednesday: On Wednesday a second test was administered in which all children participated. The words were again corrected by the students, and the remaining time used for study.
- IV. Thursday: The entire period was utilized in studying the words missed on Wednesday. The study procedure involved the actual writing of these words. Those children who made a perfect score on Wednesday were exoused from studying on Thursday.
- V. Friday: Each student participated in the final test of the week's lesson. Each child corrected his paper as the teacher spelled the words verbally. The teacher rechecked for accuracy of scores.

The procedure followed for students in "Group B" varied considerably from that of the students in "Group A." The attempt with the students in "Group B" was to ascertain spelling growth they accomplished in spelling through the use of "learning by listening." This method of learning brings into effect the auditory approach as an effective condition of learning. This procedure eliminated all attempts of students to study their spelling except that which was incidental to the correction of tests administered on Monday, Wednesday, and Friday. On Monday the pupils took a test over the week's lesson without having advantage of seeing or studying the words. The instructor pronounced each word, used each word in a sentence, pronounced it again and on the second pronunciation the students wrote the word. Upon the completion of pronouncing the week's lesson, students scored their own papers as the teacher spelled orally. Any learning which was done by the students was accomplished during the interim of time when the instructor spelled the words orally while the students scored their papers. Immediately after the words were scored, a re-test of the identical lesson was again given to the students. The purpose of the re-test was to measure the growth students made by listening to the correct spelling of words. This same procedure was administered on Monday, Wednesday, and Friday of each week. Each week presented a new group of words for that interim.

The study involving both groups of students, namely "Group A" and "Group B" continued for a period of six weeks.

Chapter II

ORGANIZATION OF DATA GATHERED

The data gathered from the results of the scores pupils made upon the two spelling procedures were organized into tabular form. Tables were constructed for both groups of students used in the study; the tables were constructed in a manner to indicate the scores students made on their spelling tests for Monday, Wednesday, and Friday.

The tables illustrate the growth of each pupil from the Monday through the final test on Friday. Likewise, further examination of the study shows which spelling words were of a high level of difficulty for these groups; and, the total number of words spelled correctly out of a total possibility of errors which might have been made.

The data gathered for the students of "Group A" is presented first; this information is given in the tables showing the results for each test for each week for the duration of the study. A short summary of each test is given immediately following each table for each group. This data is then followed with the information gathered for the subjects of "Group B." Comparisons between the scores of the two groups are then given.

The use of the tabular arrangement in this study makes it convenient to determine at a glance several important factors about the experiment. Namely, the growth accomplished by each pupil from test to test, the number of words spelled correctly on the pre-test, and

on each succeeding test, the words which the pupils did not know, and the growth made for each child throughout each procedure for the six weeks, and to discover the differences in the results of the two methods used.

The range and the median are presented for each test. No other statistical data were computed, since it was known a statistical significance existed between the two methods. The examiner desired to keep the growth accomplished for each pupil in the forefront, since in so many studies the record for each child is lost in the milieu of computations. The function of good teaching is to allow each pupil to develop to his utmost capacity.

The data presented in tabular form follows the subsequent pages.

GROUP A
Pre-Test Results for Monday (First Week)
Test-Study-Test-Method

Pre-Test Results for Monday (First Week)																														Freq.	Correct.
Test-Study-Test-Method																														Freq.	Wrong
Words (25)	Students																														
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55			
wearing																			W		W	W							25	3	
covering									W										W		W	W		W			W		22	6	
opening	W																		W			W							25	3	
starting	W			W			W												W	W				W			W		21	7	
showing	W								W													W							25	3	
saving	W	W					W			W						W			W	W		W	W			W			18	10	
closing	W	W					W		W					W	W					W	W	W	W	W	W		W		15	13	
leaving	W	W												W	W				W	W	W	W		W	W		W		17	11	
dancing	W	W					W		W			W			W		W		W				W	W		W	W		16	12	
hoping	W	W					W								W					W	W	W			W				20	8	
ache	W								W					W	W	W			W	W	W			W			W		18	10	
escape	W	W	W				W	W	W			W		W	W	W			W	W	W	W	W	W	W	W	W	W	9	19	
practice	W		W	W				W	W			W		W	W	W			W	W	W	W	W	W	W	W	W	W	10	18	
shake		W					W				W	W							W		W	W		W					20	8	
believe	W	W	W	W				W	W		W	W		W	W	W	W		W	W	W	W	W	W	W	W	W	W	7	21	
feel	W	W					W		W			W		W	W				W	W			W	W	W				16	12	
receive	W	W	W	W	W		W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	1	27	
throw	W		W	W			W	W											W	W	W	W	W	W			W		16	12	
laugh			W				W				W								W	W	W	W	W		W			W	18	10	
quarrel	W	W	W	W			W	W	W	W		W		W		W	W	W	W	W	W			W	W		W		9	19	
folks	W	W					W	W		W				W				W	W	W	W	W	W	W	W	W	W	W	11	17	
either	W	W	W	W			W			W				W	W	W			W	W	W	W		W			W	W	11	17	
secret	W	W	W	W			W	W	W	W		W	W		W				W	W	W	W	W	W	W	W	W	W	8	20	
guard	W		W	W			W	W	W					W	W	W		W	W	W	W	W	W	W	W		W		9	19	
laughed	W	W		W			W	W			W	W					W	W	W	W	W	W		W	W		W		12	16	
Correct	4	10	16	14	24	21	9	16	11	22	19	13	23	12	12	19	17	20	3	6	6	5	13	5	11	16	8	24	379		
Wrong	21	15	9	11	1	4	16	9	14	3	6	12	2	13	13	6	8	5	22	19	19	20	12	20	14	9	17	1		321	

SUMMARY

Pre-Test Results

Monday, First Week

Group A

The results of the scores achieved on the pre-test show that 379 words or 54.1 per cent were spelled correctly out of a possibility of 700. This per cent follows closely the percentage of words pupils generally spell correctly on the Monday pre-tests. Six students had a score of twenty or more out of a possible twenty-five; however, no student received a perfect score, and eight had a score less than ten.

Student Thirty-Seven missed twenty-two out of twenty-five; Student One missed twenty-one out of twenty-five; and Student Forty-Three missed twenty. The group as a whole missed 321 words on the pre-test.

GROUP A
Second Test Results for Wednesday (First Week)
Test-Study-Test-Method

Second Test Results for Wednesday (First Week)																														Freq.	Correct.
Test-Study-Test-Method																														Freq.	Wrong
Words (25)	Students																														
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55			
wearing																												28	0		
covering	W								W																W			25	3		
opening	W																											27	1		
starting	W																		W							W		25	3		
showing																			W									27	1		
saving																			W									27	1		
closing		W	W				W												W	W				W		W		21	7		
leaving		W										W		W					W					W				23	5		
dancing	W			W								W							W		W			W				22	6		
hoping																												28	0		
ache	W																					W						26	2		
escape	W	W	W				W		W		W	W		W				W	W			W		W	W		W	14	14		
practice	W	W					W				W	W		W				W	W	W	W	W		W	W			15	13		
shake							W												W							W		25	3		
believe	W	W		W			W	W			W	W		W		W			W	W	W			W	W			14	14		
feel																												28	0		
receive	W	W		W		W	W	W	W		W	W	W	W	W		W	W	W	W	W	W	W	W	W	W	W	6	22		
throw				W															W	W						W		24	4		
laugh	W																		W								W	25	3		
quarrel	W						W										W		W		W	W		W				21	7		
folks	W	W					W					W		W					W	W	W					W		19	9		
either	W						W										W		W	W	W			W				21	7		
secret		W		W			W		W					W					W	W					W	W		19	9		
guard	W	W	W	W								W		W					W	W	W					W		18	10		
laughed																			W							W		26	2		
Correct	11	16	22	19	25	24	15	23	21	25	21	17	24	17	24	24	22	22	6	16	17	20	24	16	19	23	16	25	554		
Wrong	14	9	3	6	0	1	10	2	4	0	4	8	1	8	1	1	3	3	19	9	8	5	1	9	6	2	9	0		146	

SUMMARY

Test Results

Wednesday, First Week

Group A

The table indicates that the subjects as a group spelled correctly 554 words, or with a degree of 79.1 per cent accuracy. This number of words spelled correctly on Wednesday, represents an increase of 175 words, or a 25 per cent in accuracy above the results of the Monday pre-test.

Three students had perfect spelling scores, and sixteen had scores of twenty or more correct out of the twenty-five words in the lesson. Student One who had only four correct on Monday received a score of eleven correct by Wednesday. Student Thirty-Seven received a score of six correct as against three correct on Monday. Student Forty-Three made tremendous growth by Wednesday; he made a score of twenty correct on this day as against only five correct on Monday. The class as a whole only missed 146 words out of a possible 700.

GROUP A
Third Test Results for Friday (First Week)
Test-Study-Test-Method

Third Test Results for Friday (First Week)																												Freq.	Correct.		
Test-Study-Test-Method																												Freq.	Wrong.		
Words (25)	Students																														
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55			
wearing	W																											27	1		
covering																												28	0		
opening	W																											27	1		
starting	W																											26	2		
showing																												28	0		
saving																												28	0		
closing																												27	1		
leaving	W																											26	2		
dancing	W																											25	3		
hoping																												27	1		
ache																												28	0		
escape	W	W																											23	5	
practice	W	W																											20	8	
shake	W																											25	3		
believe	W	W																											20	8	
feel																												28	0		
receive	W	W	W																											17	11
throw	W																											26	2		
laugh																												26	2		
quarrel	W																											24	4		
folks	W	W																											23	5	
either	W																											25	3		
secret	W																											21	7		
guard	W	W																											25	3	
laughed																												25	3		
Correct	12	17	25	22	24	25	22	25	21	25	24	21	23	19	23	25	25	24	11	22	22	24	25	23	23	25	23	25	625		
Wrong	13	8	0	3	1	0	3	0	4	0	1	4	2	6	2	0	0	1	14	3	3	1	0	2	2	0	2	0		75	

SUMMARY

Final Test Results

Friday, First Week

Group A

The test given on Friday was the final test for the week's lesson which consisted of twenty-five words. A tremendous increase in spelling growth is apparent by examining the three tabular forms. By Friday an accuracy of 625 words or 89.2 per cent was attained for the entire group. The comparisons for the week's growth in spelling thusly shows:

	<u>Correct</u>	<u>Per cent Correct</u>
Monday	379	54.1
Wednesday	554	79.1
Friday	625	89.2

By Friday an increase of 35.1 per cent or an increase of 246 words in accuracy was accomplished the Monday pre-test and the Friday final test. Nine students had perfect scores for the Friday test, and fifteen had scores ranging from twenty to twenty-five correct.

Several students made little appreciable gain. Student One advanced from four correct on Monday to twelve correct on Friday. Twenty-five words are too many words for this child and also Student Thirty-Seven and Student Forty-Three progressed from five correct on Monday to twenty-four correct by Friday.

The reader is referred to the table showing the results of the Friday tests for other conclusions.

GROUP A
Pre-Test Results for Monday (Second Week)
Test-Study-Test-Method

Pre-Test Results for Monday (Second week)																														Freq.	Correct.	Freq.	Wrong.
Test-Study-Test-Method																																	
Words (25)	Students																																
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55					
aid																			W										27		1		
check	W	W					W												W			W		W			W		21		7		
gain														W					W	W	W			W					23		5		
sound	W																		W		W						W		24		4		
press	W																		W					W			W		24		4		
changed			W	W				W	W			W			W				W	W	W		W	W			W		16		12		
received	W	W	W	W			W		W			W	W	W	W		W		W	W	W			W			W		12		16		
promised	W	W	W	W			W	W	W		W			W		W			W	W		W	W	W	W		W		11		17		
surprised	W	W		W		W	W	W	W		W	W		W		W		W	W	W	W	W	W	W	W	W	W	W	7		21		
believed	W	W					W		W			W					W		W	W	W		W				W		17		11		
decide	W	W	W	W			W		W		W			W	W			W	W	W	W	W	W	W	W	W	W	W	9		19		
rate	W	W												W					W			W					W		22		6		
date						W													W										26		2		
trade																			W			W	W						25		3		
shade																			W	W		W					W		24		4		
opened			W									W													W				25		3		
needed	W								W			W							W		W	W							22		6		
passed	W		W				W		W			W		W			W		W		W				W	W			17		11		
knocked	W	W		W			W	W	W		W	W			W				W	W	W	W	W	W	W		W	W	10		18		
interested	W	W	W	W			W	W	W		W	W		W	W		W	W	W	W	W	W	W	W	W	W	W	W	6		22		
final	W	W	W	W					W			W		W				W	W	W	W	W	W		W		W		13		15		
borrowed	W		W	W			W	W	W			W		W	W			W	W	W	W	W	W	W	W		W		10		18		
following	W			W			W	W	W			W			W					W	W	W	W		W		W		15		13		
finally	W	W	W	W			W	W		W	W	W	W	W	W		W	W	W	W	W	W	W	W	W	W	W	W	5		23		
figures	W	W	W	W			W	W	W			W		W	W				W	W	W	W	W	W	W		W		10		18		
Correct	7	13	14	13	25	22	12	17	10	24	20	11	23	13	16	23	20	19	2	10	9	10	12	12	13	20	7	24	421				
Wrong	18	12	11	12	0	3	13	8	15	1	5	14	2	12	9	2	5	6	23	15	16	15	13	13	12	5	18	1		279			

SUMMARY

Pre-Test Results

Monday, Second Week

Group A

The scores show that 421 or 60 per cent of the words were correctly spelled in the pre-test given on Monday for the second week. One pupil, Student Nine, received a perfect score, and eight students made a score of twenty or better. Seven pupils made a score of ten or less which indicates the need for consideration of individual differences.

The word "finally" was misspelled by twenty-three of the twenty-eight pupils, while the word "interested" was missed by twenty-two persons, and "surprised" by twenty-one.

The total frequency correct for the pre-test on Monday of the first week was 379, as against 421 for the pre-test of the second week which is an appreciable gain.

Students One, Thirty-Seven, and Fifty-Three encountered a great deal of difficulty in the pre-test. It can be probably be observed at this interim in the experiment that these students might better spend their time studying the words rather than participate in the pre-test.

GROUP A
Second Test Results for Wednesday (Second Week)
Test-Study-Test-Method

Second Test Results for Wednesday (Second Week)																														Freq.	Correct.
Test-Study-Test-Method																														Freq.	Wrong.
Words (25)	Students																														
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55			
aid									W																				27	1	
check	W																							W					26	2	
gain	W																		W					W					25	3	
sound														W					W										26	2	
press				W					W										W	W									24	4	
changed	W																		W	W	W								24	4	
received	W	W										W		W					W		W								22	6	
promised	W	W	W	W			W	W						W					W	W				W	W		W		16	12	
surprised	W	W	W				W		W					W					W	W		W			W		W		17	11	
believed	W		W	W			W			W				W	W			W	W	W						W			17	11	
decide	W	W		W			W		W									W	W	W		W		W			W		17	11	
rate	W															W													26	2	
date	W																												27	1	
trade																							W						27	1	
shade					W				W										W			W							24	4	
opened	W	W																									W		25	3	
needed	W	W													W								W	W	W		W		21	7	
passed								W				W	W		W												W		23	5	
knocked	W		W													W			W			W		W					22	6	
interested	W	W		W								W				W			W			W		W					20	8	
final	W	W					W												W	W		W		W					21	7	
borrowed	W	W										W							W	W									23	5	
following	W					W					W					W	W				W				W				21	7	
finally	W						W		W			W							W	W		W		W					20	8	
figures	W		W	W					W			W					W		W	W		W		W		W	W		16	12	
Correct	6	16	20	19	24	24	19	23	18	25	23	19	24	20	20	21	24	23	9	15	23	16	24	14	22	24	17	25	557		
Wrong	19	9	5	6	1	1	6	2	7	0	2	6	1	5	5	4	1	2	16	10	2	9	1	11	3	1	8	0	143		

SUMMARY

Test Results

Wednesday, Second Week

Group A

The students as a group had a frequency correct of 557 words, or an accuracy of 79.5 per cent. This was a gain of 136 words over the pre-test administered on Monday. Two students made perfect scores; while fifteen received a score of twenty or above. Student One still continued to have difficulty; Student Thirty-Seven who had only two words correct increased this to nine by Wednesday. Attention is called toward the growth made by Student Fifty-Three between Monday and Wednesday. On Monday he spelled only seven words correctly while on Wednesday this score increased to seventeen.

No word was missed by more than twelve pupils. The word "finally" missed by twenty-three students on Monday caused trouble for only eight by Wednesday.

GROUP A
Third Test Results for Friday (Second Week)
Test-Study-Test-Method

Initial test results for Friday (second week)																														Freq.	Correct.
Test-Study-Test-Method																														Freq.	Wrong.
Words (25)	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55			
aid																													28	0	
check																													28	0	
gain		W																			W								26	2	
sound																					W								27	1	
press	W																												27	1	
changed	W															W			W	W	W						W		22	6	
received	W	W		W					W			W		W			W		W	W	W			W			W		16	12	
promised	W	W		W			W		W					W					W	W	W			W			W		17	11	
surprise	W		W	W								W		W	W				W	W	W	W					W		17	11	
believed	W	W		W			W		W			W		W	W				W							W			18	10	
decide	W			W			W												W	W	W	W	W	W			W		18	10	
rate															W				W										26	2	
date																													28	0	
trade																							W						27	1	
shade																			W		W								26	2	
opened	W																				W								26	2	
needed			W																W	W									25	3	
passed				W			W	W		W									W	W	W						W		20	8	
knocked	W																		W		W			W		W	W		22	6	
interested	W	W		W					W			W		W					W	W		W		W			W		17	11	
final	W			W			W				W							W	W		W	W		W			W		18	10	
borrowed	W											W		W					W		W			W			W		21	7	
following	W						W														W						W		24	4	
finally	W	W		W			W							W				W	W	W	W	W		W			W		16	12	
figures	W			W				W				W						W	W	W	W	W		W			W		17	11	
Correct	10	19	23	15	25	24	18	24	20	25	24	20	25	19	20	24	24	22	9	14	11	17	24	16	25	23	12	25	557		
Wrong	15	6	2	10	0	1	7	1	5	0	1	5	0	6	5	1	1	3	16	11	14	8	1	9	0	2	13	0	143		

SUMMARY

Final Test Results

Friday, Second Week

Group A

An unusual thing happened on the final test for the second week. No gain was made for the total frequency correct on this test from that made on Wednesday. However, many fluctuations were apparent in the individual scores. Five perfect scores were received, and twelve pupils had a score of twenty or better.

The comparison for the week's tests results show:

	<u>Correct</u>	<u>Per cent Correct</u>
Monday	421	60
Wednesday	557	79.5
Friday	557	79.5

Student Seventeen made a great deal of growth during the week; he had ten words spelled correctly on the pre-test and increased this to twenty on the final test on Friday.

The three students who encountered difficulty on their previous tests of the week, encountered the same trouble on the Friday test.

The words "received," "promised," "surprise," "believed," "decide," "interested," "final," "finally," and "figures" were missed with the greatest frequency.

GROUP A
Pre-Test Results for Monday (Third Week)
Test-Study-Test-Method

		Test-Study-Test-Method																																				
Words (25)	Students																																			Freq. Correct	Freq. Wrong	
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55										
safety	W		W	W					W		W	W	W	W	W		W	W	W	W	W	W	W	W			W	10	18									
accident	W	W	W				W	W	W		W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	5	23								
danger																			W		W	W							25	3								
hurt						W			W										W		W								24	4								
careful	W								W			W						W	W		W	W	W	W					19	9								
hospital	W	W				W	W		W		W			W		W	W	W	W	W	W	W	W	W			W	11	17									
medicine	W	W	W	W			W	W	W			W	W	W	W		W	W	W	W	W	W	W	W	W	W	W	W	7	21								
nurse	W		W	W			W		W			W		W				W	W		W		W	W	W				16	12								
struck	W	W		W			W		W					W				W	W		W	W	W	W		W	W		15	13								
fever	W						W		W		W	W		W				W	W	W	W	W	W						16	12								
prevent	W	W		W		W	W		W		W			W	W	W				W		W				W	W	W	13	15								
judge	W	W		W			W	W		W	W		W		W			W	W		W	W	W	W	W	W	W	W	11	17								
wise														W					W	W									25	3								
badly	W		W					W			W								W		W						W		21	7								
amount		W									W			W				W	W	W	W				W		W		19	9								
dare		W					W		W			W						W	W		W	W	W			W			18	10								
grow		W																W			W		W			W			23	5								
helped		W		W			W															W							24	4								
stopped	W		W	W			W	W	W		W			W	W	W	W	W		W	W	W			W		W		11	17								
corner	W	W	W		W		W		W					W		W			W	W		W		W		W	W		14	14								
interesting	W	W		W					W		W			W				W	W	W	W		W	W		W			15	13								
division	W	W	W	W		W	W	W	W		W			W	W		W	W	W	W	W	W	W	W	W	W	W	W	6	22								
terrible	W	W	W	W			W	W	W		W	W		W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	5	23								
beach									W									W	W					W					24	4								
telephone	W	W	W				W	W	W			W	W	W				W	W	W		W	W	W	W	W	W		11	17								
Correct	8	10	16	13	24	21	11	17	6	25	15	13	21	8	18	18	19	16	2	8	10	5	13	8	14	16	8	25	388									
Wrong	17	15	9	12	1	4	14	8	19	0	10	12	4	17	7	7	6	9	23	17	15	20	12	17	11	9	17	0		312								

SUMMARY

Pre-Test Results

Monday, Third Week

Group A

The results of the pre-test on Monday followed closely the accuracy made on the initial pre-test of the initial week. The spelling index for Monday of the third week was 55.4 per cent, which closely follows the per cent of words spelled correctly on Monday. Two students made perfect scores, while three made scores of twenty and above.

The words "accident," "medicine," "division," and "terrible," were missed with high frequency. On the other hand, "danger," "hurt," "wise," "grow," "helped," and "beach" were spelled correctly with a high frequency count. This may be due to incidental learning through reading, written work, or having appeared earlier in their spelling.

GROUP A
Second Test Results for Wednesday (Third Week)
Test-Study-Test-Method

Test-Study-Test-Method																														
Words (25)	Students																												Freq. Correct	Freq. Wrong
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55		
safety	W								W			W			W				W		W	W	W	W		W	W	17	11	
accident	W	W					W		W			W		W	W				W	W	W	W	W	W		W	W	13	15	
danger																			W								W	26	2	
hurt																			W									27	1	
careful														W					W				W	W				24	4	
hospital				W			W							W				W	W	W	W	W	W			W		18	10	
medicine	W		W	W			W	W			W	W		W	W	W		W	W	W	W	W	W	W		W	W	9	19	
nurse	W						W		W			W		W					W	W					W			20	8	
struck	W	W																	W	W			W	W				22	6	
fever	W															W			W					W	W			23	5	
prevent	W	W		W			W		W					W				W	W				W				W	W	17	11
judge	W	W		W										W	W				W	W	W	W	W	W			W	16	12	
wise				W															W									26	2	
badly												W		W					W		W							24	4	
amount		W																	W	W								25	3	
dare	W											W												W		W		24	4	
grow																												28	0	
helped																												28	0	
stopped							W					W																26	2	
corner	W			W			W		W					W				W	W			W		W			W	18	10	
interesting	W	W					W	W				W		W				W			W		W			W		18	10	
division	W		W	W			W		W			W		W				W	W	W			W	W			W	15	13	
terrible	W	W	W				W		W			W		W	W				W	W	W		W	W	W		W	13	15	
beach																			W					W				26	2	
telephone	W			W			W		W			W		W					W	W	W		W	W				17	11	
Correct	11	18	22	17	25	25	15	23	16	25	24	14	25	17	15	23	25	22	4	14	16	16	14	11	24	20	14	25	520	
Wrong	14	7	3	8	0	0	10	2	9	0	1	11	0	8	10	2	0	3	21	11	9	9	11	14	1	5	11	0	180	

SUMMARY

Test Results

Wednesday, Third Week

Group A

There was a significant gain in the number of spelling words spelled correctly on Wednesday. The frequency correct was 520 words, a 74.4 per cent accuracy, or a gain of 132 words since Monday. Six pupils made perfect scores on the Wednesday test, and seven had a score of twenty or above. Student Three, Student Five, and Student Fifteen made tremendous growth. Nearly all the students made a great deal of growth.

GROUP A
Third Test Results for Friday (Third Week)
Test-Study-Test-Method

Test-Study-Test-Method																														Freq.	Correct	Freq.	Wrong
Words (25)	Students																																
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55					
safety									W			W							W										25		3		
accident				W					W					W	W				W			W					W		21		7		
danger												W							W										26		2		
hurt																													28		0		
careful												W							W					W					25		3		
hospital														W					W			W							25		3		
medicine	W			W					W					W	W				W		W	W	W	W			W		17		11		
nurse			W					W	W										W					W					23		5		
struck		W																	W								W		25		3		
fever																													28		0		
prevent									W										W			W							25		3		
judge	W																		W					W					25		3		
wise																													28		0		
badly	W											W							W										25		3		
amount																			W			W							26		2		
dare																													28		0		
grow																													28		0		
helped																													28		0		
stopped																													28		0		
corner									W						W				W					W					24		4		
interesting	W			W					W			W												W					23		5		
division		W						W	W			W		W	W				W								W		20		8		
terrible	W							W	W			W		W	W				W	W	W	W		W				17		11			
beach																													28		0		
telephone	W								W			W							W										24		4		
Correct	19	23	24	22	25	25	22	25	15	25	25	17	25	20	20	25	25	25	9	24	23	19	24	18	25	25	21	25	620				
Wrong	6	2	1	3	0	0	3	0	10	0	0	8	0	5	5	0	0	0	16	1	2	6	1	7	0	0	4	0			80		

SUMMARY

Final Test Results

Friday, Third Week

Group A

By examining the chart, the reader will note that the pupils did exceedingly well on their Friday scores. The score was 620 out of a possible 700; this is a spelling accuracy of 88.6 per cent. This represents an increase of 322 words since the pre-test on Monday, and an increase of 100 since Wednesday.

Twelve students received perfect scores on the Friday final test, and ten had a score of twenty and above.

The difficulty in spelling "medicine" and "terrible" was consistent for all three tests.

Student Thirty-Seven continued with considerable difficulty.

The growth for the week is shown:

	<u>Correct</u>	<u>Per cent Correct</u>
Monday	388	55.4
Wednesday	520	74.4
Friday	620	88.6

GROUP A
Pre-Test Results for Monday (Fourth Week)
Test-Study-Test-Method

Test-Study-Test-Method																														Freq.	Correct	Freq.	Wrong
Words (25)	Students																												Freq.	Correct	Freq.	Wrong	
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55					
decided	W								W									W	W	W	W	W		W					20	8			
settled	W			W			W				W	W		W					W	W	W		W	W	W	W	W		14	14			
placed	W						W		W					W	W				W	W	W		W	W					18	10			
tired	W			W					W	W	W			W					W	W			W					W	18	10			
handled	W	W							W			W		W			W		W	W		W	W	W				W	16	12			
treated	W	W		W				W	W			W						W	W			W	W	W				W	16	12			
returned	W							W	W			W		W	W		W		W	W		W	W	W	W	W	W	W	13	15			
seemed	W			W					W					W						W				W	W			W	20	8			
failed	W	W	W	W		W			W					W					W		W			W					18	10			
wondered		W					W		W			W					W		W	W	W	W	W	W	W	W	W		15	13			
mixed				W															W						W				25	3			
ordered	W	W		W				W	W		W	W							W	W	W	W		W	W	W	W		13	15			
talked	W						W												W		W			W	W				22	6			
showed																			W									W	26	2			
answered	W	W		W			W	W	W			W		W	W				W	W	W	W	W	W	W	W	W	W	10	18			
loving		W	W	W																W									24	4			
lovingly		W	W	W										W	W					W									22	6			
dearest									W			W		W	W				W		W	W		W				W	19	9			
sincere	W	W	W	W			W	W	W		W	W		W	W		W		W		W	W	W	W	W	W	W	W	8	20			
sincerely	W	W	W	W			W	W	W		W	W		W	W		W		W		W	W	W	W	W	W	W	W	8	20			
parents	W	W		W			W		W					W	W	W		W	W	W	W	W	W	W	W	W	W	W	10	18			
thoughts	W			W					W						W				W	W	W		W	W				W	18	10			
prayer	W	W	W	W				W	W					W				W	W	W	W		W	W	W			W	13	15			
citizen	W	W	W	W			W	W				W		W	W		W	W	W	W	W	W	W	W	W	W	W	W	6	22			
vegetables	W	W	W	W			W	W	W		W	W	W	W	W	W		W	W	W	W	W	W	W	W	W			6	22			
Correct	6	11	17	8	25	22	16	17	6	24	19	13	24	9	14	23	19	19	3	8	9	12	10	5	11	16	8	24	398				
Wrong	19	14	8	17	0	3	9	8	19	1	6	12	1	16	11	2	6	6	22	17	16	13	15	20	14	9	17	1		302			

SUMMARY

Pre-Test Results

Monday, Fourth Week

Group A

The spelling index for the pre-test for this week was 56.9 per cent, or 398 words spelled correctly. One pupil achieved a perfect score on the pre-test, and five others made scores of twenty or better. Four words were missed with a high frequency; these were "sincere," "sincerely," "citizen," and "vegetables."

GROUP A
Second Test Results for Wednesday (Fourth Week)
Test-Study-Test-Method

Test-Study-Test-Method																														Freq.	Correct	Freq.	Wrong
Words (25)	Students																																
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55					
decided	W	W	W	W					W					W					W			W		W					19		9		
settled	W			W					W					W					W		W								22		6		
placed																			W	W	W								25		3		
tired	W	W		W					W						W				W	W			W						20		8		
handled	W	W													W				W	W			W	W					21		7		
treated	W													W					W	W	W	W		W					21		7		
returned	W			W			W	W	W					W	W				W	W	W	W		W				16		12			
seemed																				W			W		W				25		3		
failed	W								W											W				W		W	W		22		6		
wondered	W	W		W					W			W							W	W		W							20		8		
mixed		W					W																						26		2		
ordered		W							W						W				W	W	W	W		W			W		19		9		
talked																			W					W					26		2		
showed																													28		0		
answered	W		W				W	W	W					W	W		W		W	W	W	W	W	W		W		13		15			
loving																													28		0		
lovingly									W			W																	26		2		
dearest	W			W			W								W							W		W					22		6		
sincere	W			W			W		W					W	W				W	W	W	W		W			W	16		12			
sincerely	W			W			W	W	W			W		W	W				W	W	W	W		W			W	14		14			
parents		W	W	W					W			W		W	W				W	W	W		W				W	16		12			
thoughts	W		W						W			W							W	W	W					W		20		8			
prayer	W	W	W	W					W			W				W			W	W	W			W	W		W	15		13			
citizen	W	W		W			W		W			W		W	W				W	W	W	W	W	W	W		W	12		16			
vegetables	W	W		W			W	W				W		W	W				W	W	W	W		W			W	13		15			
Correct	9	15	20	13	25	24	18	21	9	25	25	17	25	15	14	24	24	25	7	8	12	14	19	11	22	23	16	25	505				
Wrong	16	10	5	12	0	1	7	4	16	0	0	8	0	10	11	1	1	0	18	17	13	11	6	14	3	2	9	0			195		

SUMMARY

Test Results

Wednesday, Fourth Week

Group A

Considerable improvement on this week's lesson was accomplished by Wednesday; an increase in accuracy of 200 words was made since the Monday pre-test. The per cent of accuracy was 72.1. Six students received perfect scores, while seven received a score of twenty and above. Of note was the growth made by Student Seven, Student Seventeen, and especially Student Thirty-Seven who made as high a score on this test as any so far in the experiment.

GROUP A
Third Test Results for Friday (Fourth Week)
Test-Study-Test-Method

Third Test Results for Primary (Read on Week)																														Freq.	Correct	
Test-Study-Test-Method																														Freq.	Wrong	
Words (25)	Students																															
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55				
decided	W	W				W			W						W				W					W					21	7		
settled	W																				W			W					25	3		
placed		W		W															W		W								24	4		
tired	W	W																											26	2		
handled	W	W	W	W															W	W				W			W		20	8		
treated	W			W					W					W					W			W		W					21	7		
returned	W		W											W					W	W	W	W				W			20	8		
seemed		W																						W					26	2		
failed							W																	W					26	2		
wondered		W				W							W						W	W	W			W					21	7		
mixed				W			W						W											W					24	4		
ordered		W				W													W	W		W		W			W		21	7		
talked		W																											27	1		
showed																													28	0		
answered	W		W						W			W		W					W	W	W			W			W		18	10		
loving																													28	0		
lovingly							W					W			W														25	3		
dearest												W			W				W					W				W	23	5		
sincere	W								W					W			W					W					W		22	6		
sincerely	W	W							W					W				W			W	W					W		20	8		
parents		W		W								W		W	W		W		W		W			W			W		18	10		
thoughts	W	W							W										W	W				W					22	6		
prayer	W			W					W					W					W	W	W		W	W			W		18	10		
citizen	W	W		W		W			W			W		W	W	W	W		W	W	W	W		W			W		12	16		
vegetables	W			W				W	W			W		W	W				W		W	W		W			W		16	12		
Correct	12	13	22	17	25	21	22	24	16	25	25	18	24	16	19	24	21	25	11	17	15	18	24	9	24	25	16	24	552			
Wrong	13	12	3	8	0	4	3	1	9	0	0	7	1	9	6	1	4	0	14	8	10	7	1	16	1	0	9	1		148		

SUMMARY

Final Test Results

Friday, Fourth Week

Group A

The results of scores for the final showed an accuracy index of 78.9 per cent, or a score of 552 out of a possible 700. Five pupils had perfect scores on the final spelling lesson for the week.

Students One, Thirty-Seven, Forty-One, and Forty-Seven continued to encounter difficulty on these twenty-five words for a week's assignment; nevertheless they did make some spelling growth. Student Forty-Nine advanced from a score of eleven on Monday to a score of twenty-four on Friday.

The growth accomplished is given:

	<u>Correct</u>	<u>Per cent Correct</u>
Monday	398	56.9
Wednesday	505	72.1
Friday	552	78.9

This is a gain of 154 words, or 22 per cent. Four words accounted for a high frequency of incorrect spellings, namely, "citizen," "vegetables," "parents," and "answered."

GROUP A
Pre-Test Results for Monday (Fifth Week)
Test-Study-Test-Method

Test-Study-Test-Method																														Freq. Correct	Freq. Wrong
Words (25)	Students																														
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55			
cities	W	W	W				W		W		W								W										21	7	
stories	W	W					W		W		W		W						W			W		W					19	9	
ladies	W						W		W		W		W						W										22	6	
parties	W	W					W		W		W	W	W	W			W		W										18	10	
studies		W		W			W	W	W		W		W	W					W	W									18	10	
factory	W	W		W			W		W		W	W	W						W	W	W	W	W	W		W	W		12	16	
duty	W	W	W											W					W	W	W			W		W			19	9	
county	W										W				W				W		W								23	5	
library	W	W	W	W					W		W		W	W			W	W	W		W	W	W	W	W	W	W	W	11	17	
given		W	W					W	W					W					W	W	W								20	8	
holiday	W																			W						W			25	3	
joy			W												W			W	W			W		W	W		W		20	8	
valley	W		W	W			W												W		W					W			21	7	
offer	W	W																	W	W			W	W			W		21	7	
gift	W	W		W			W	W	W		W	W							W				W	W					17	11	
field							W													W									26	2	
hog	W	W	W	W					W		W		W	W	W				W		W	W	W	W	W		W		12	16	
junior	W	W	W	W			W				W		W						W	W	W	W				W			16	12	
proper	W						W				W	W	W		W					W	W			W					19	9	
bottom	W	W	W	W			W	W	W		W	W	W	W	W				W	W	W	W	W	W	W		W		8	20	
anxious	W		W	W			W		W		W		W				W		W	W			W	W	W	W	W		13	15	
biggest									W											W	W				W				24	4	
honor	W	W	W	W			W	W	W		W	W		W	W	W			W	W	W	W	W	W	W	W	W	W	7	21	
questions	W	W	W	W			W		W		W		W				W		W	W		W		W		W	W		13	15	
followed	W	W							W		W										W	W		W	W		W		19	9	
Correct	5	9	13	14	25	25	10	20	9	25	21	9	21	11	16	22	22	23	5	10	13	15	17	11	17	16	15	25	444		
Wrong	20	16	12	11	0	0	15	5	16	0	4	16	4	14	9	3	3	2	20	15	12	10	8	14	8	9	10	0		256	

SUMMARY

Pre-Test Results

Monday, Fifth Week

Group A

There were 444 words spelled correctly on the Monday test which is the best mark recorded up to this time. This is 63.4 per cent accuracy which is very good for a pre-test. There were four papers without errors which is the best record in that respect of any Monday scores. In addition to the four perfect scores, there were six students who had a score of twenty or above. In the "frequency correct" column there were eleven words which were spelled correctly twenty or more times. The word "honor" was troublesome for most of the children.

GROUP A
Second Test Results for Wednesday (Fifth Week)
Test-Study-Test-Method

Test-Study-Test-Method																														Freq.	Correct	Freq.	Wrong
Words (25)	Students																																
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55					
cities	W											W							W										25		3		
stories							W							W					W										25		3		
ladies																			W							W			26		2		
parties	W							W											W									25		3			
studies				W			W												W									25		3			
factory	W	W		W					W						W				W	W					W	W		19		9			
duty	W		W																W		W							24		4			
county															W				W							W		25		3			
library	W			W			W					W		W					W	W	W			W		W		18		10			
given				W						W									W					W				24		4			
holiday	W								W			W		W										W		W		22		6			
joy																					W							27		1			
valley									W			W					W							W				24		4			
offer									W												W						W	25		3			
gift	W										W															W		25		3			
field	W					W	W		W					W	W				W	W				W	W	W		17		11			
hog																												28		0			
junior	W	W		W		W	W		W			W	W	W				W	W	W	W			W		W		13		15			
proper	W	W		W			W	W											W		W	W		W				19		9			
bottom	W																		W		W						W	24		4			
anxious	W	W		W		W	W		W			W	W	W		W			W	W	W	W	W	W	W	W		11		17			
biggest							W					W							W	W			W					23		5			
honor	W			W					W			W		W					W	W	W		W	W		W		17		11			
questions						W	W		W					W	W				W	W			W	W	W	W		17		11			
followed	W														W					W								25		3			
Correct	11	21	24	17	25	21	16	23	14	25	25	17	23	17	20	25	23	24	7	16	16	23	21	15	22	22	16	24	553				
Wrong	14	4	1	8	0	4	9	2	11	0	0	8	2	8	5	0	2	1	18	9	9	2	4	10	3	3	9	1			147		

SUMMARY

Test Results

Wednesday, Fifth Week

Group A

The Wednesday test results maintained the same high progress as that of Monday with a record of 553 words correctly spelled. This was an increase of 109 words over the Monday score. The accuracy index was 79.0 per cent.

Student Three who had nine words right on Monday progressed to twenty-one correct on Wednesday. Student Five advanced from thirteen right on Monday to twenty-four correct on Wednesday; while Students Twenty-Three and Forty-Three showed considerable gain from Monday to Wednesday.

GROUP A
Third Test Results for Friday (Fifth Week)
Test-Study-Test-Method

Test-Study-Test-Method																														Freq.	Correct	Freq.	Wrong
Words (25)	Students																																
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55					
cities																			W										27	1			
stories												W							W		W			W					24	4			
ladies												W			W				W										25	3			
parties	W											W			W				W										24	4			
studies	W																		W		W								25	3			
factory	W	W		W				W											W		W								22	6			
duty															W				W		W								25	3			
county		W						W		W									W										24	4			
library	W			W				W				W							W								W		22	6			
given																								W					27	1			
holiday	W	W		W					W			W									W			W			W		20	8			
joy	W														W														26	2			
valley												W				W								W					25	3			
offer									W			W																	26	2			
gift									W															W	W				25	3			
field	W														W		W												25	3			
hog																													28	0			
junior	W							W		W		W							W							W		22	6				
proper	W							W				W			W				W									23	5				
bottom																													28	0			
anxious	W							W		W		W		W		W		W	W	W			W			W		17	11				
biggest								W																					27	1			
honor	W																				W		W	W		W		23	5				
questions				W				W		W		W			W				W				W		W	W		19	9				
followed	W																						W					26	2				
Correct	13	22	25	21	25	25	17	25	18	25	25	14	25	22	20	23	24	25	12	24	18	25	25	16	23	24	19	25	605				
Wrong	12	3	0	4	0	0	8	0	7	0	0	11	0	3	5	2	1	0	13	1	7	0	0	9	2	1	6	0	95				

SUMMARY

Final Test Results

Friday, Fifth Week

Group A

The number of words correct on the Friday test was 605, which was an increase of 161 over Monday. This is equivalent to 86.4 per cent spelling accuracy. Eleven students had all the words correct on the final test. Two words "hog" and "bottom," were spelled correctly by everyone in Group A. Student Five who had thirteen correct on Monday, advanced to twenty-four on Wednesday, and to a perfect score on Friday. The scores of Student Seven increased from fourteen on Monday to twenty-one on Friday. Student Thirty-Nine progressed from only ten correct on Monday to sixteen correct on Wednesday, and to a total of twenty-four on the final test. Scores for Student Forty-One indicated continuous growth from Monday through Friday. Likewise Student Forty-Five made a significant gain in spelling growth during the week, and noticeable was Student Fifty-Five who made a perfect score on each of the three tests for the week.

The growth achieved for the week was:

	<u>Correct</u>	<u>Per cent Correct</u>
Monday	444	63.4
Wednesday	553	79.0
Friday	605	86.4

The words "anxious," "questions," "holiday," "factory," "library," "junior," were missed with the greatest frequency.

GROUP A
Pre-Test Results for Monday (Sixth Week)
Test-Study-Test-Method

110-1000 Results for Monday (School Week)																														Freq.	Correct
Test-Study-Test-Method																														Freq.	Wrong
Words (25)	Students																														
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55			
subject	W			W			W		W						W				W		W		W	W	W		W	17	11		
marry	W			W			W										W						W					23	5		
worry		W					W					W			W													24	4		
fry							W	W						W					W		W						W	22	6		
empty	W			W			W	W	W		W	W		W	W	W	W		W	W	W			W		W	W	W	10	18	
buried	W		W	W					W			W		W	W				W	W	W		W	W	W	W	W	13	15		
carried	W	W							W			W		W					W	W		W	W				W	18	10		
tried	W	W		W					W			W							W	W			W	W		W	W	17	11		
studying			W								W		W		W	W			W	W			W	W	W		W	W	16	12	
paying																												28	0		
heavy	W	W		W			W		W			W			W			W	W	W					W		W	16	12		
sleepy		W										W							W						W			24	4		
cloudy		W										W							W		W			W	W		W	21	7		
enjoyed		W										W	W							W				W			W	22	6		
stayed	W	W							W			W		W					W					W	W			20	8		
enjoying												W		W							W	W		W			W	22	6		
passing							W		W												W						W	24	4		
using		W					W								W					W	W		W	W				21	7		
thanking									W					W					W									25	3		
wedding									W										W		W		W	W				23	5		
good-bye															W		W				W						W	24	4		
baseball	W											W							W	W	W							23	5		
sake											W			W													W	25	3		
airplane	W		W						W					W					W									23	5		
handkerchief	W			W			W		W			W	W		W			W	W	W	W			W				16	12		
Correct	14	16	22	18	25	25	16	23	13	25	23	11	23	16	16	23	21	23	9	12	15	24	17	13	18	22	12	22	517		
Wrong	11	9	3	7	0	0	9	2	12	0	2	14	2	9	9	2	4	2	16	13	10	1	8	12	7	3	13	3		183	

SUMMARY

Pre-Test Results

Monday, Sixth Week

Group A

The results of this pre-test shows the greatest degree of spelling accuracy of any of the previous pre-tests. There were 517 words spelled correctly out of a possible 700, which is a spelling index of 73.9 per cent. This index of accuracy on a pre-test is far beyond expectations normally accomplished on a pre-test given on a Monday. It has been shown by research that students are doing very well when they can attain a spelling accuracy of 55 to 60 per cent on a Monday pre-test. This may mean that some of these words may have been learned previously through reading, composition, or previous spelling lessons.

There were thirteen students who had score of twenty-one or above, including three who had perfect scores. Student One who has made scores of a low accuracy on the previous pre-tests made a score of fourteen correct on this pre-test. Student Thirty-Seven continued to encounter difficulty with his ability to spell.

GROUP A
Second Test Results for Wednesday (Sixth Week)
Test-Study-Test-Method

	Test-Study-Test-Method																									Freq.	Correct	Freq.	Wrong			
Words (25)	Students																															
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55				
subject	W																		W						W		W		24		4	
marry																													28		0	
worry																													28		0	
fry																													28		0	
empty																			W						W		W		25		3	
buried	W	W		W								W	W	W					W		W			W		W		18		10		
carried													W								W			W		W		24		4		
tried															W	W				W	W	W						23		5		
studying	W	W		W					W						W					W			W		W	W	W	18		10		
paying																													28		0	
heavy																			W									27		1		
sleepy	W	W		W											W						W						W	21		7		
cloudy		W																				W			W			25		3		
enjoyed		W																									W	26		2		
stayed	W			W																W				W		W		23		5		
enjoying		W																									W	26		2		
passing																													28		0	
using																									W			27		1		
thanking																				W					W		W	25		3		
wedding																									W			27		1		
good-bye																													28		0	
baseball																													28		0	
sake																													28		0	
airplane																		W		W								26		2		
handkerchief																				W			W		W			25		3		
Correct	20	19	25	21	25	25	25	24	25	25	25	24	23	21	24	25	23	25	15	23	21	23	25	15	23	24	16	25	634			
Wrong	5	6	0	4	0	0	0	1	0	0	0	1	2	4	1	0	2	0	10	2	4	2	0	10	2	1	9	0			66	

SUMMARY

Test Results

Wednesday, Sixth Week

Group A

A gain of 117 words, or a total of 634 words, was made on the Wednesday test. This was a 16.7 per cent gain. Eleven students had perfect papers. Eight words were spelled correctly by everyone in the group. These words were, "marry," "worry," "fry," "paying," "passing," "good-bye," "baseball," and "sake."

Student One who has been having difficulty all through the study made a good score of twenty on Wednesday which is his highest score that he has accomplished. Students Thirteen and Sixteen made considerable growth from Monday to Wednesday. As a whole the group did exceedingly well on this test.

GROUP A
Third Test Results for Friday (Sixth Week)
Test-Study-Test-Method

Third Test Results for Friday (Benton Wood)																														Freq. Correct	Freq. Wrong	
Test-Study-Test-Method																																
Words (25)	Students																															
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55				
subject																											W	27	1			
marry																												28	0			
worry												W																	27	1		
fry																												28	0			
empty																												28	0			
buried	W											W	W					W	W								W	22	6			
carried												W	W								W							25	3			
tried	W																				W							26	2			
studying																		W						W				26	2			
paying																												28	0			
heavy																	W											27	1			
sleepy		W															W						W					25	3			
cloudy		W										W							W									25	3			
enjoyed																					W							27	1			
stayed														W									W	W				25	3			
enjoying																					W							27	1			
passing																					W							27	1			
using																												28	0			
thanking		W																	W									26	2			
wedding																												28	0			
good-bye																												28	0			
baseball																												28	0			
sake																												28	0			
airplane																			W									27	1			
handkerchief																			W									27	1			
Correct	23	22	25	25	25	25	25	25	25	25	25	21	25	22	25	25	23	25	19	24	20	25	23	23	25	25	23	25	668			
Wrong	2	3	0	0	0	0	0	0	0	0	0	4	0	3	0	0	2	0	6	1	5	0	2	2	0	0	2	0	32			

SUMMARY

Final Test Results

Friday, Sixth Week

Group A

The scores achieved on the Friday test were the best of any test during the study. Seventeen students made the remarkable record of spelling all twenty-five words correctly. Twenty-seven students made a score of twenty or better. Student Thirty-Seven advanced to his highest degree of accuracy on this week's lesson.

The development made during the week was:

	<u>Correct</u>	<u>Per cent Correct</u>
Monday	517	73.9
Wednesday	634	90.6
Friday	668	95.4

The subsequent pages contain the tabular forms which give the results obtained in the "learning by listening" method of teaching spelling. As previously mentioned in this thesis, the students participating in this group had no opportunity to do any of the spelling words which were included in the investigation. The tables are constructed in the same procedure as the results of the scores of the students in "Group A."

GROUP B
Test Results for Monday (First Week)
Learning by Listening Method

Learning by Listening Method																																																										
Words (25)	Students																																																								Freq. Correct	Freq. Wrong
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56																														
wearing	W					W			W					W		W	W		W	W	W			W	W				17	11																												
covering												W					W	W			W	W			W				22	6																												
opening							W					W			W		W	W					W						22	6																												
starting									W								W												26	2																												
showing									W								W			W									25	3																												
saving	W	W										W	W				W	W		W	W	W				W		W	17	11																												
closing	W			W					W			W	W		W		W	W		W		W				W		W	16	12																												
leaving	W	W		W					W			W			W		W	W		W									19	9																												
dancing		W		W					W			W	W		W		W	W		W	W	W	W						16	12																												
hoping		W					W			W			W		W		W	W				W				W		W	18	10																												
ache	W	W	W				W		W		W	W	W	W	W	W		W	W	W	W	W	W			W	W	W	7	21																												
escape	W	W		W			W	W	W		W	W	W	W	W		W	W	W	W	W	W			W		W		9	19																												
practice	W	W		W	W	W	W		W	W	W	W	W	W	W		W	W	W	W	W	W	W		W	W	W	W	4	24																												
shake				W					W			W					W	W					W						22	6																												
believe	W	W	W	W				W	W				W	W	W		W	W	W	W	W	W		W	W	W	W	W	8	20																												
feel	W	W		W			W		W			W			W		W	W		W		W					W		16	12																												
receive	W					W			W	W		W					W	W	W	W	W	W					W		16	12																												
throw	W	W			W				W			W		W			W	W				W			W		W	W	16	12																												
laugh	W	W							W			W		W	W		W	W		W	W	W				W	W		15	13																												
quarrel		W		W			W		W		W	W	W		W		W		W	W	W	W	W		W	W			12	16																												
folks	W	W	W			W		W	W		W	W	W		W		W	W	W	W	W	W				W	W	W	9	19																												
either		W							W			W	W				W	W			W	W	W			W	W	W	16	12																												
secret									W			W		W	W		W	W	W	W	W	W			W	W	W	15	13																													
guard		W					W		W	W		W		W	W		W	W		W	W	W	W			W		W	13	15																												
laughed	W	W				W	W		W			W		W	W		W	W		W	W	W				W		W	13	15																												
Correct	12	8	22	16	23	19	17	21	5	20	20	5	14	16	8	25	0	3	17	7	8	5	18	24	18	11	16	11	389																													
Wrong	13	17	3	9	2	6	8	4	20	5	5	20	11	9	17	0	25	22	8	18	17	20	7	1	7	14	9	14		311																												

SUMMARY

Pre-Test Results

Monday, First Week

Group B

The reader by inspecting the table on Monday will note there were 389 words spelled correctly out of a possible 700. This is equivalent to a 55.6 per cent spelling accuracy. One student received a perfect score; six students had twenty or above words correct out of the twenty-five. On the other hand there were nine students who spelled less than ten words correctly on the pre-test with one student spelling all the words incorrectly.

GROUP B
Test Results for Wednesday (First Week)
Learning by Listening Method

Test Results for Wednesday (First Week)																														Freq. Correct	Freq. Wrong	
Learning by Listening Method																																
Words (25)	Students																															
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56				
wearing									W								W												26	2		
covering						W											W				W	W							24	4		
opening									W													W							26	2		
starting																	W												27	1		
showing									W								W			W									25	3		
saving																	W			W	W								25	3		
closing								W	W			W			W		W			W	W	W							20	8		
leaving									W			W					W			W									24	4		
dancing									W								W	W				W							24	4		
hoping																							W						27	1		
ache									W			W					W	W		W	W	W				W			20	8		
escape									W		W	W			W		W	W		W	W	W			W	W			17	11		
practice	W	W		W				W	W			W			W		W	W	W	W	W	W			W	W		W	12	16		
shake									W						W		W	W											24	4		
believe									W						W		W	W	W	W	W	W							20	8		
feel						W	W	W									W			W									23	5		
receive									W						W		W	W		W	W	W	W		W			W	18	10		
throw									W			W					W					W							24	4		
laugh									W								W					W							24	4		
quarrel									W			W			W		W			W	W	W	W						20	8		
folks									W			W					W	W				W	W						22	6		
either									W		W						W	W				W	W						22	6		
secret	W								W			W		W	W		W	W		W	W	W			W	W			16	12		
guard									W								W			W			W						24	4		
laughed																													21	7		
Correct	24	23	25	24	25	24	24	22	4	25	23	15	25	24	17	25	2	14	23	10	11	9	22	25	21	21	25	23	555			
Wrong	1	2	0	1	0	1	1	3	21	0	2	10	0	1	8	0	23	11	2	15	14	16	3	0	4	4	0	2		145		

SUMMARY

Test Results

Wednesday, First Week

Group B

The group spelled 555 words correctly or an increase of 166 words over Monday. This is a spelling index of 79.3 per cent. There were seven students who had perfect scores and thirteen who had twenty-one or above correct. Students Six, Ten, and Twelve made considerable growth from Monday to Wednesday. Student Twenty-Four had five correct on Monday and increased this to fifteen on Wednesday.

GROUP B
Test Results for Friday (First Week)
Learning by Listening Method

Learning by Listening Method																														Freq.	Correct	Freq.	Wrong
Words (25)	Students																																
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56					
wearing									W						W		W												25	3			
covering									W						W		W	W			W	W							22	6			
opening																	W					W							26	2			
starting									W								W												26	2			
showing									W								W												26	2			
saving									W								W				W	W							24	4			
closing								W	W		W				W		W				W	W							21	7			
leaving									W						W		W												25	3			
dancing									W								W	W			W								24	4			
hoping																					W								27	1			
ache									W						W		W	W				W							23	5			
escape									W		W				W		W	W		W	W				W				20	8			
practice									W		W				W		W	W	W		W	W			W		W		18	10			
shake									W						W		W	W											24	4			
believe									W								W												26	2			
feel									W																				27	1			
receive									W								W	W		W	W	W			W		W		20	8			
throw									W		W						W												25	3			
laugh									W								W												26	2			
quarrel									W		W				W		W				W		W						22	6			
folks									W		W						W	W			W	W							22	6			
either																	W					W							26	2			
secret									W						W		W	W		W	W	W			W				20	8			
guard									W								W				W								25	3			
laughed									W								W				W								25	3			
Correct	25	25	25	25	25	25	25	24	3	25	25	19	25	25	15	25	2	16	24	22	12	15	24	25	21	25	25	23	595				
Wrong	0	0	0	0	0	0	0	1	22	0	0	6	0	0	10	0	23	9	1	3	13	10	1	0	4	0	0	2		105			

SUMMARY

Final Test Results

Friday, First Week

Group B

The results from the Friday test showed 85 per cent spelling accuracy or 595 words correctly spelled. There were fifteen students who had all words spelled correctly. The word "practice" was misspelled ten times on Friday; however, this was better than Monday when the word was incorrectly spelled by twenty-four children. Students Two, Four, Twenty, and Twenty-Eight improved greatly through the week and had perfect scores on the Friday test. The total results of the first week on "learning spelling by listening" were quite encouraging.

The development made during the week was:

	<u>Correct</u>	<u>Per cent Correct</u>
Monday	389	55.6
Wednesday	555	79.3
Friday	595	85.0

GROUP B
Test Results for Monday (Second Week)
Learning by Listening Method

Learning by Listening Method																														Freq.	Correct	Freq.	Wrong
Words (25)	Students																																
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56					
aid																		W			W	W							25	3			
check																													28	0			
gain									W			W						W			W	W							23	5			
sound																		W			W	W							25	3			
press									W			W			W			W											24	4			
changed								W	W			W						W				W							23	5			
received									W			W						W	W		W	W	W		W			W	19	9			
promised		W						W	W	W		W			W			W	W	W	W	W	W		W		W	W	13	15			
surprised	W	W		W		W		W	W		W	W			W			W	W		W	W	W		W	W	W		11	17			
believed			W						W					W				W	W		W							W	21	7			
decide	W	W				W		W	W									W	W				W		W	W	W	W	16	12			
rate		W							W									W	W				W	W	W				21	7			
date								W	W		W									W									24	4			
trade									W			W						W	W			W	W	W					21	7			
shade									W			W						W	W			W							23	5			
opened									W													W							26	2			
needed												W						W				W	W				W		23	5			
passes	W	W						W	W			W						W				W	W						20	8			
knocked	W								W		W	W			W			W	W	W	W	W	W	W		W			15	13			
interested	W					W			W		W				W			W	W	W	W	W			W		W		16	12			
final		W				W		W	W			W			W			W	W	W	W		W				W	W	15	13			
borrowed			W			W			W	W	W	W		W				W	W		W	W	W	W		W		W	13	15			
following									W						W			W	W			W	W		W		W		20	8			
finally	W	W				W		W	W	W	W	W	W					W	W	W	W	W	W	W		W		W	9	19			
figures		W	W			W		W	W		W	W		W	W			W	W	W	W	W	W	W		W	W	W	9	19			
Correct	19	17	22	24	25	18	25	16	4	22	18	10	23	23	17	25	4	9	18	15	7	7	19	25	16	21	20	14	483				
Wrong	6	8	3	1	0	7	0	9	21	3	7	15	2	2	8	0	21	16	7	10	18	18	6	0	9	4	5	11	217				

SUMMARY

Pre-Test Results

Monday, Second Week

Group B

The results of the second Monday pre-test showed 483 words correct or a spelling index of 69 per cent. There were five perfect scores and seven students who had twenty or above correct. The word "figures" was misspelled nineteen times, while the word "check" was correctly spelled by everyone in the group. Though this is only the second week of the study for the students, it appears as though twenty-five words may present too much of a load for students Eighteen, Thirty-Four, Forty-Two, and Forty-Four.

GROUP B
Test Results for Wednesday (Second Week)
Learning by Listening Method

Learning by Listening Method																														Freq. Correct	Freq. Wrong
Words (25)	Students																														
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56			
aid																		W											27	1	
check																							W						27	1	
gain																	W					W							26	2	
sound																	W												27	1	
press									W			W																	26	2	
changed									W			W					W												25	3	
received									W			W					W	W		W	W	W			W			W	19	9	
promised	W								W						W		W			W	W		W			W		W	19	9	
surprised				W					W			W			W		W	W		W		W			W	W	W		17	11	
believed				W								W					W	W				W							23	5	
decide									W								W	W							W	W		W	22	6	
rate									W								W					W							25	3	
date																													28	0	
trade									W			W					W	W					W	W					22	6	
shade									W			W					W	W			W								23	5	
opened									W																				27	1	
passed	W	W															W						W						24	4	
knocked	W								W			W			W		W			W	W	W			W				19	9	
interested	W								W						W		W	W	W	W	W				W				19	9	
final									W			W					W	W											24	4	
borrowed									W		W				W		W	W			W	W				W			20	8	
following	W					W			W			W					W	W			W								21	7	
finally	W								W	W		W			W		W	W		W	W						W		18	10	
needed																	W				W	W							25	3	
figures	W					W		W	W			W	W		W		W	W		W	W	W	W		W		W		13	15	
Correct	22	20	25	23	25	23	25	24	8	24	23	13	25	25	18	25	5	12	24	18	15	14	21	25	19	21	23	21	566		
Wrong	3	5	0	2	0	2	0	1	17	1	2	12	0	0	7	0	20	13	1	7	10	11	4	0	6	4	2	4	134		

SUMMARY

Test Results

Wednesday, Second Week

Group B

There were 566 words spelled correctly out of a possible 700. This is equivalent to 80.9 per cent accuracy. Nineteen students scored twenty words or above correctly including seven perfect scores. The word "figures" continued to be troublesome for fifteen students in the group. The words "surprised," "figures," and "finally" were missed with the greatest frequency. Student Fifty-Six increased his score from fourteen correct on Monday to twenty-one on Wednesday.

GROUP B
Test Results for Friday (Second Week)
Learning by Listening Method

Learning by Listening Method																														Freq.	Correct	Freq.	Wrong
Words (25)	Students																																
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56					
aid																		W					W						26	2			
check																													28	0			
gain																	W					W							26	2			
sound																	W												27	1			
press									W								W												26	2			
changed									W								W					W			W				24	4			
received									W								W	W		W	W	W	W		W				20	8			
promised	W														W		W				W	W			W				22	6			
surprised		W							W			W					W	W			W	W			W				20	8			
believed																	W	W											26	2			
decide								W	W								W	W				W	W			W	W		20	8			
rate									W								W					W							25	3			
date																													28	0			
trade	W								W								W	W				W	W						22	6			
shade									W			W					W												25	3			
opened									W																				27	1			
needed	W																W												26	2			
passed																	W				W	W							25	3			
knocked	W								W						W		W			W	W					W			21	7			
interested	W								W						W		W	W		W	W			W		W			19	9			
final									W			W			W		W						W						23	5			
borrowed									W						W		W						W						24	4			
following									W								W												26	2			
finally		W							W			W			W		W	W					W	W		W			19	9			
figures		W							W		W	W			W		W	W					W			W			19	9			
Correct	20	22	25	25	25	25	25	24	9	25	24	20	25	25	18	25	4	16	25	22	19	12	19	25	17	24	25	24	594				
Wrong	5	3	0	0	0	0	0	1	16	0	1	5	0	0	7	0	21	9	0	3	6	13	6	0	8	1	0	1	106				

SUMMARY

Final Test Results

Friday, Second Week

Group B

The scores achieved on the Friday test were 594 correct, which is a spelling index of 84.9 per cent. The twelve perfect scores were an increase of five over Wednesday. Students Thirty-Eight, Fifty-Two, and Fifty-Four maintained high scores from Monday through Friday. Student Forty-Eight had perfect scores on all three tests. The scores of Student Thirty-Four showed that he was encountering difficulty with this many words, albeit, he showed some progress since the previous week. The over-all picture for the week indicates a steady, though not spectacular, growth in spelling accuracy.

The development made during the week was:

	<u>Correct</u>	<u>Per cent Correct</u>
Monday	483	69.0
Wednesday	566	80.9
Friday	594	84.9

GROUP B
Test Results for Monday (Third Week)
Learning by Listening Method

Test Results for Monday (Third Week)																														Freq. Correct	Freq. Wrong
Learning by Listening Method																															
Words (25)	Students																														
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56			
safety		W					W		W	W			W	W			W	W	W	W	W	W			W				15	13	
accident		W					W		W	W	W	W	W		W		W	W	W	W	W	W			W	W			11	17	
danger		W										W			W		W												24	4	
hurt		W															W						W				W		24	4	
careful									W								W				W	W					W		23	5	
hospital		W					W		W	W	W	W	W		W		W	W		W	W	W			W	W	W		12	16	
medicine	W	W	W	W		W		W	W		W	W	W		W		W	W	W	W	W	W			W	W	W	W	7	21	
nurse									W						W		W				W	W					W		22	6	
struck								W				W					W				W	W	W			W	W		20	8	
fever								W			W	W			W		W				W		W				W	W	19	9	
prevent	W						W		W			W		W	W		W	W		W							W	W	17	11	
judge									W								W	W		W		W					W	W	W	20	8
wise									W			W					W					W							24	4	
badly												W					W		W	W	W	W							22	6	
amount												W					W			W		W					W		23	5	
dare									W			W			W		W			W	W	W							21	7	
grow									W								W										W		25	3	
helped									W			W					W												25	3	
stopped								W	W			W					W			W		W	W				W		20	8	
corner									W								W	W		W		W						W	22	6	
interesting	W	W							W						W		W			W	W								21	7	
division		W	W				W		W			W		W	W		W	W	W	W	W	W			W	W	W	W	11	17	
terrible	W	W	W	W		W	W		W	W	W	W		W	W		W	W	W	W	W	W	W			W	W	W	W	5	23
beach		W							W			W					W												24	4	
telephone	W								W			W	W		W		W	W	W	W	W	W	W				W	W	14	14	
Correct	21	14	22	23	25	20	22	20	5	22	20	7	20	22	13	25	0	15	18	9	10	8	21	25	18	9	18	19	471		
Wrong	4	11	3	2	0	5	3	5	20	3	5	18	5	3	12	0	25	10	7	16	15	17	4	0	7	16	7	6		229	

SUMMARY

Pre-Test Results

Monday, Third Week

Group B

There were 471 words spelled correctly on the Monday pre-test. This is a 67.3 per cent accuracy. Students Ten, Thirty-Two, and Forty-Eight had perfect scores. The word "terrible" was misspelled by twenty-three students, and "medicine" by twenty-one.

GROUP B
Test Results for Wednesday (Third Week)
Learning by Listening Method

Test Results for Wednesday (Third Week)																														Freq.	Correct	Freq.	Wrong
Learning by Listening Method																																	
Words (25)	Students																																
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56					
safety	W							W			W						W	W		W	W	W	W						19	9			
accident	W					W		W	W		W	W		W			W	W		W	W	W	W		W	W			13	15			
danger								W			W						W													25	3		
hurt	W							W									W				W	W								23	5		
careful								W									W				W	W								24	4		
hospital	W							W			W						W	W		W	W	W			W	W			18	10			
medicine	W			W		W		W	W		W	W		W			W	W	W	W	W	W			W	W	W	W	10	18			
nurse								W									W				W	W					W			23	5		
struck								W			W						W			W		W								22	6		
fever						W					W						W					W	W							22	6		
prevent								W			W						W			W			W							22	6		
judge								W									W				W									25	3		
wise																	W														27	1	
badly								W									W				W	W								24	4		
amount											W						W					W					W			24	4		
dare								W							W		W					W								24	4		
grow								W									W													26	2		
helped																														28	0		
stopped											W						W				W									25	3		
corner								W									W			W										25	3		
interesting																	W		W		W									25	3		
division		W	W			W		W			W				W		W	W	W	W	W	W	W		W		W	W	12	16			
terrible	W		W			W		W	W		W				W		W	W	W	W	W	W	W		W	W	W	W	10	18			
beach								W			W						W													25	3		
telephone								W			W	W					W		W	W	W	W							20	8			
Correct	23	20	23	24	25	20	25	23	6	24	24	13	21	25	17	25	1	19	20	14	11	11	19	25	20	21	20	22	541				
Wrong	2	5	2	1	0	5	0	2	19	1	1	12	4	0	8	0	24	6	5	11	14	14	6	0	5	4	5	3	159				

SUMMARY

Test Results

Wednesday, Third Week

Group B

There was an increase of 70 words from the Monday test, or 541 correct. This is equivalent to a 77.3 per cent spelling accuracy. Nineteen students had better than twenty words correct, including five with perfect scores. Student Four scored fourteen on Monday and twenty on Wednesday; Student Fifty-Two made remarkable progress from nine on Monday to twenty-four on Wednesday. The word "helped" was spelled correctly by everyone in the group.

GROUP B
Test Results for Friday (Third Week)
Learning by Listening Method

Learning by Listening Method																														Freq. Correct	Freq. Wrong
Words (25)	Students																														
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56			
safety									W			W					W	W		W	W	W			W				20	8	
accident		W							W				W				W	W		W	W	W							20	8	
danger									W			W					W												25	3	
hurt									W								W				W	W							24	4	
careful									W								W												26	2	
hospital		W							W			W					W	W			W	W					W		20	8	
medicine	W	W		W					W						W		W	W	W	W	W	W	W		W	W	W		13	15	
nurse									W						W		W				W	W							23	5	
struck									W			W					W												25	3	
fever									W						W		W												25	3	
prevent									W			W			W		W					W							23	5	
judge									W								W					W							25	3	
wise																	W												27	1	
badly									W								W				W	W			W				23	5	
amount						W											W				W	W							24	4	
dare									W								W												26	2	
grow									W								W												26	2	
helped																													28	0	
stopped																													28	0	
corner									W								W			W									25	3	
interesting	W																W												26	2	
division									W								W	W		W	W	W	W				W		20	8	
terrible	W								W			W			W		W		W	W	W	W			W		W		17	11	
beach									W		W	W					W												24	4	
telephone									W			W	W				W				W	W							22	6	
Correct	22	22	25	24	25	24	25	25	5	25	24	17	23	25	20	25	2	20	23	19	13	14	23	25	20	23	22	25	585		
Wrong	3	3	0	1	0	1	0	0	20	0	1	8	2	0	5	0	23	5	2	6	12	11	2	0	5	2	3	0		115	

SUMMARY

Final Test Results

Friday, Third Week

Group B

There were 585 words or 83.6 per cent accuracy on the Friday test. There were nine perfect scores. Twenty-two students made scores of twenty or above. The word "terrible" which was misspelled by twenty-three students on Monday, was missed by only eleven pupils on Friday. Student Eighteen and Thirty-Four made no appreciable gain during the week, however, Student Fifty-Two showed spectacular growth from nine on Monday to twenty-three on Friday. Students Four, Twenty-Four, Thirty, and Forty made steady growth throughout the week.

The development made during the week was:

	<u>Correct</u>	<u>Per cent Correct</u>
Monday	471	67.3
Wednesday	541	77.3
Friday	585	83.6

GROUP B
Test Results for Monday (Fourth Week)
Learning by Listening Method

Test Results for Monday (Fourth Week)																														Freq. Correct	Freq. Wrong	
Learning by Listening Method																																
Words (25)	Students																														Freq. Correct	Freq. Wrong
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56				
decided	W					W			W	W							W	W	W	W	W	W				W		W	16	12		
settled				W					W								W				W	W	W			W	W	W	19	9		
placed	W					W					W			W			W				W		W			W			20	8		
tired									W								W						W						25	3		
handled					W			W					W		W							W	W			W	W	W	19	9		
treated	W							W				W	W				W				W	W							21	7		
returned						W			W				W		W	W					W	W			W			W	19	9		
seemed						W			W								W	W			W	W	W						21	7		
failed									W			W			W						W	W							23	5		
wondered		W				W	W		W						W		W	W			W	W	W			W			17	11		
mixed																						W	W						26	2		
ordered									W						W		W	W	W	W	W	W	W		W	W			17	11		
talked									W								W		W			W							24	4		
showed									W											W		W							25	3		
answered									W					W		W				W	W	W	W		W				20	8		
loving									W								W									W			25	3		
lovingly									W								W		W						W	W			23	5		
dearest			W						W								W		W			W			W		W		21	7		
sincere		W				W		W	W			W			W		W	W	W		W	W			W	W	W		14	14		
sincerely	W	W				W	W	W	W	W		W			W		W	W	W	W	W	W	W		W	W			10	18		
parents	W	W		W		W			W			W			W		W	W	W	W		W			W	W			14	14		
thoughts									W			W	W	W	W		W				W	W					W		18	10		
prayer	W	W	W	W		W	W	W	W			W			W		W	W	W	W	W	W	W			W	W	W	8	20		
citizen		W		W		W	W					W	W	W	W		W	W	W	W	W	W	W		W		W	W	10	18		
vegetables		W	W	W		W			W	W		W		W	W		W	W	W	W	W	W			W				12	16		
Correct	22	16	22	19	25	13	21	22	3	22	25	17	22	21	10	25	3	14	13	15	8	4	15	25	15	13	18	19	467			
Wrong	3	9	3	6	0	12	4	3	22	3	0	8	3	4	15	0	22	11	12	10	17	21	10	0	10	12	7	6	233			

SUMMARY

Pre-Test Results

Monday, Fourth Week

Group B

The reader by inspecting the tables for the Monday test will note a score of 467, or 66.7 per cent spelling accuracy. The four perfect scores along with seven students who had scores of twenty-one or above indicates a good showing for a pre-test. The words "prayer," "citizen," and "sincerely" were listed high in the "frequency wrong" column.

GROUP B
Test Results for Wednesday (Fourth Week)
Learning by Listening Method

Learning by Listening Method																														Freq.	Correct	Freq.	Wrong
Words (25)	Students																																
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56					
decided	W								W						W		W	W		W	W	W					W		19		9		
settled	W								W						W		W				W	W	W						21		7		
placed	W					W			W			W			W		W					W	W			W			19		9		
tired									W						W									W					25		3		
handled						W			W								W	W			W	W	W						21		7		
treated									W						W		W			W	W								23		5		
returned						W	W		W						W		W	W	W		W	W					W		18		10		
seemed															W		W	W			W	W	W						22		6		
failed									W								W					W							25		3		
wondered						W			W								W	W		W	W	W							21		7		
mixed									W							W					W								25		3		
ordered									W								W	W	W		W	W				W			21		7		
talked																						W							27		1		
showed									W																				27		1		
answered	W								W						W		W				W	W	W		W				20		8		
loving									W																				27		1		
lovingly									W																	W			26		2		
dearest									W								W		W		W					W			23		5		
sincere						W			W			W			W		W	W	W	W	W	W	W		W	W	W		14		14		
sincerely						W			W			W			W		W	W	W	W	W	W	W		W	W	W		14		14		
parents				W					W			W					W			W	W	W			W		W		19		9		
thoughts									W			W	W				W		W		W	W							21		7		
prayer	W	W				W			W						W		W	W	W	W	W	W	W			W		W	14		14		
citizen									W			W	W		W		W	W		W	W	W			W		W	W	16		12		
vegetables	W	W	W			W			W			W			W		W	W	W	W	W	W	W					W	13		15		
Correct	24	19	24	23	25	17	24	25	2	25	25	19	22	25	13	24	5	14	17	16	7	7	15	25	18	20	19	22	521				
Wrong	1	6	1	2	0	8	1	0	23	0	0	6	3	0	12	1	20	11	8	9	18	18	10	0	7	5	6	3			179		

SUMMARY

Test Results

Wednesday, Fourth Week

Group B

Wednesday test results shows 521 correct, a gain of 54 over Monday. Seven students spelled all twenty-five words correctly. The word "vegetables" was misspelled by fifteen students. Students Two, Four, Six, and Eight increased their scores from Monday to Friday, however, Students Eighteen and Thirty-Four showed little progress. It seems apparent by this time in the study that twenty-five words are far too many for these students. The scores of Students Ten, Twenty-Two, and Forty-Eight maintained their perfect rating from the Monday test.

GROUP B
Test Results for Friday (Fourth Week)
Learning by Listening Method

Test Results for Friday (Fourth week)																														Freq.	Correct
Learning by Listening Method																														Freq.	Wrong
Words (25)	Students																														
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56			
decided						W												W		W		W							24	4	
settled									W								W					W								25	3
placed		W															W					W								25	3
tired									W								W					W								25	3
handled																	W	W				W								25	3
treated									W								W			W	W	W								23	5
returned									W		W			W			W		W		W	W								21	7
seemed									W								W				W	W	W							23	5
failed									W								W					W								25	3
wondered									W								W													26	2
mixed									W																					27	1
ordered									W								W	W	W			W	W							22	6
talked																						W								27	1
showed									W																					27	1
answered									W						W		W	W		W		W	W							21	7
loving									W																					27	1
lovingly									W								W													26	2
dearest									W								W													26	2
sincere									W			W					W	W	W	W	W	W				W				19	9
sincerely									W			W					W	W		W	W					W	W			20	8
parents									W								W				W	W								24	4
thoughts															W		W									W				25	3
prayer									W						W		W	W	W	W	W	W				W				19	9
citizen						W			W								W	W		W	W	W	W		W			W		18	10
vegetables									W			W					W	W			W	W	W							21	7
Correct	25	24	25	25	25	23	25	25	5	25	25	21	25	25	21	25	5	16	21	18	15	8	21	25	21	23	25	24	591		
Wrong	0	1	0	0	0	2	0	0	20	0	0	4	0	0	4	0	20	9	4	7	10	17	4	0	4	2	0	1	109		

SUMMARY

Final Test Results

Friday, Fourth Week

Group B

A study of the chart will show that the students had a score of 591 on Friday. This is equivalent to a 84.4 per cent spelling accuracy. Thirteen out of twenty-eight students spelled all words correctly; in addition nine students had scores of twenty-one or above. Students Ten, Twenty-Two, and Forty-Eight continued their perfect scores for all tests of the week. Student Twenty-Four showed steady growth; he advanced from a score of seventeen on Monday to twenty-one on Friday. The word "vegetables" misspelled by sixteen students on Monday was missed by only seven on Friday. Similiar increases in growth were shown by the students on the words "citizen," "prayer," and "sincerely."

The development made during the week was:

	<u>Correct</u>	<u>Per cent Correct</u>
Monday	467	66.7
Wednesday	521	74.4
Friday	591	84.4

GROUP B
Test Results for Monday (Fifth Week)
Learning by Listening Method

1898 Results for Monday (11th week)																														Freq.	Correct
Learning by Listening Method																														Freq.	Wrong
Words (25)	Students																														
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56			
cities						W																W			W				25	3	
stories						W			W								W					W							24	4	
ladies						W			W								W												25	3	
parties						W			W								W					W							24	4	
studies									W								W		W			W							24	4	
factory						W			W						W		W			W		W							22	6	
duty									W								W					W							25	3	
county									W								W	W	W	W		W	W			W			20	8	
library	W	W				W	W		W	W		W			W		W	W		W	W	W			W	W	W	W	11	17	
given						W			W								W												25	3	
holiday												W								W	W	W			W				23	5	
joy																													28	0	
valley						W											W				W	W							24	4	
offer							W		W								W				W								24	4	
gift									W								W	W				W			W				23	5	
field									W								W					W				W			24	4	
hog									W																				27	1	
junior		W	W			W	W		W		W		W		W		W	W	W	W	W	W			W	W	W	W	11	17	
proper		W							W						W		W					W				W			22	6	
bottom		W					W		W								W												24	4	
anxious	W					W			W	W	W	W		W	W		W	W	W	W	W	W	W		W	W	W	W	9	19	
biggest		W							W												W	W			W				23	5	
honor			W			W			W	W		W	W	W	W		W	W		W	W	W	W		W				13	15	
questions									W			W			W		W			W								W	22	6	
followed																	W								W				26	2	
Correct	23	20	23	25	25	13	22	25	5	22	24	19	24	23	18	25	5	19	21	17	17	8	22	25	15	20	22	21	548		
Wrong	2	5	2	0	0	12	3	0	20	3	1	6	1	2	7	0	20	6	4	8	8	17	3	0	10	5	3	4	152		

SUMMARY

Pre-Test Results

Monday, Fifth Week

Group B

The 548 score for Monday is the highest recorded in the study up to this time. The 78.3 per cent accuracy is excellent for a pre-test. There were eighteen scores of twenty or above including five perfect papers. The words "anxious," "junior," and "library" caused most of the difficulty.

GROUP B
Test Results for Wednesday (Fifth Week)
Learning by Listening Method

Learning by Listening Method																														Freq.	Correct	Freq.	Wrong
Words (25)	Students																																
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56					
cities																						W	W						26	2			
stories									W							W						W							25	3			
ladies																					W	W							26	2			
parties									W							W									W				25	3			
studies									W							W						W		W					24	4			
factory		W							W							W			W			W							23	5			
duty									W							W						W							25	3			
county									W							W	W					W							24	4			
library	W	W							W			W			W		W	W		W	W	W	W		W	W	W		14	14			
given																	W				W								26	2			
holiday										W										W									26	2			
joy																													28	0			
valley									W	W													W						25	3			
offer																	W						W						26	2			
gift									W								W												26	2			
field									W								W	W					W						24	4			
hog									W																W	W			25	3			
junior		W	W			W			W		W				W		W	W		W	W	W				W	W		15	13			
proper									W								W									W			25	3			
bottom																	W					W							26	2			
anxious		W							W	W		W			W		W	W	W	W	W	W			W	W	W		14	14			
biggest																	W												27	1			
honor									W						W		W	W		W	W	W			W				20	8			
questions									W		W						W			W					W				23	5			
followed									W								W												26	2			
Correct	24	21	24	25	25	24	25	25	8	23	24	21	25	25	21	25	6	19	24	18	19	12	21	23	19	21	24	23	594				
Wrong	1	4	1	0	0	1	0	0	17	2	1	4	0	0	4	0	19	6	1	7	6	13	4	2	6	4	1	2	106				

SUMMARY

Test Results

Wednesday, Fifth Week

Group B

The Wednesday chart shows an increase of forty-six words over Monday, with a record score of 594, which is equivalent to 84.9 per cent accuracy, also a record. The seven perfect scores, along with the fourteen students who scored twenty-one or more, indicate true validity of the method used. Student Twelve with a score of thirteen on Monday, increased this to twenty-four on Wednesday, and Student Fifty who scored fifteen Monday progressed to nineteen on Wednesday. Only several words caused difficulty, these were "library," "junior," and "anxious."

GROUP B
Test Results for Friday (Fifth Week)
Learning by Listening Method

		Test Results for Friday (First Week)																												Freq.	Correct
		Learning by Listening Method																												Freq.	Wrong
Words (25)		Students																													
		2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56		
cities																														28	0
stories																		W												27	1
ladies																		W												27	1
parties																														28	0
studies																		W					W							26	2
factory										W								W			W									25	3
duty										W								W												26	2
county										W										W										26	2
library		W								W								W	W		W	W	W							21	7
given																														28	0
holiday																W					W									26	2
joy																														28	0
valley										W															W					26	2
offer																									W					27	1
gift										W																				27	1
field										W									W	W				W						24	4
hog																														28	0
junior		W								W						W		W				W	W			W		W		20	8
proper										W								W						W						25	3
bottom										W								W	W											25	3
anxious										W	W		W			W		W	W		W	W	W	W		W	W			16	12
biggest																														28	0
honor										W						W			W			W	W	W						22	6
questions										W			W					W												25	3
followed										W								W						W						25	3
Correct		25	23	25	25	25	25	25	25	11	24	25	23	25	25	21	25	12	19	25	21	21	18	20	25	23	24	24	25	634	
Wrong		0	2	0	0	0	0	0	0	14	1	0	2	0	0	4	0	13	6	0	4	4	7	5	0	2	1	1	0		66

SUMMARY

Final Test Results

Friday, Fifth Week

Group B

The total number of words correctly spelled on Friday was 634 out of a possible 700. Scoring over 90 per cent accuracy on a spelling test where no studying is allowed is nothing short of phenomenal. Twenty-four of the twenty-eight students who took the test made scores of twenty or above. This includes the fourteen perfect scores. Student Eighteen who did not do well on previous tests, showed some degree of retention by scoring five on Monday, eight on Wednesday, and eleven on the Friday test. Only one word was troublesome, "anxious" and that was spelled incorrectly by only twelve students. The progress shown by the students, especially on the tests on this week was very gratifying.

The development made during the week was:

	<u>Correct</u>	<u>Per cent Correct</u>
Monday	548	78.3
Wednesday	594	84.9
Friday	634	90.1

GROUP B
Test Results for Monday (Sixth Week)
Learning by Listening Method

Test Results for Monday (Sixth Week)																														Freq.	Correct
Learning by Listening Method																														Freq.	Wrong
Words (25)	Students																														
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56			
subject	W	W										W					W	W	W	W		W			W	W			18	10	
marry							W																W						26	2	
worry									W													W							26	2	
fry																							W						27	1	
empty									W			W			W		W	W		W	W	W			W				19	9	
buried	W	W		W		W		W	W		W			W		W	W		W	W	W				W	W	W	W	11	17	
carried														W	W		W	W		W	W	W	W			W		W	18	10	
tried	W						W		W			W		W	W		W	W									W		19	9	
studying				W		W						W			W		W	W	W		W	W			W			W	17	11	
paying												W					W					W							25	3	
heavy						W			W					W			W				W	W			W				21	7	
sleepy									W								W	W			W	W							23	5	
cloudy									W						W		W	W		W									23	5	
enjoyed						W			W								W				W								24	4	
stayed									W			W			W		W			W	W					W			21	7	
enjoying																					W				W				26	2	
passing																	W			W			W						25	3	
using															W		W			W	W								24	4	
thanking												W					W	W					W						24	4	
wedding									W											W		W							25	3	
good-bye									W													W							26	2	
baseball									W								W					W							25	3	
sake																	W	W				W							25	3	
airplane									W								W	W		W									24	4	
handkerchief	W			W					W			W			W		W	W		W	W	W	W			W			16	12	
Correct	21	23	25	22	25	21	24	23	11	25	25	16	25	23	15	25	6	13	23	14	14	11	19	25	19	20	23	22	558		
Wrong	4	2	0	3	0	4	1	2	14	0	0	9	0	2	10	0	19	12	2	11	11	14	6	0	6	5	2	3	142		

SUMMARY

Pre-Test Results

Monday, Sixth Week

Group B

The 558 correct of this pre-test was better by ten than the previous Monday pre-test score. It is equivalent to an accuracy of 79.7 per cent. Eighteen students scored twenty or better, and seven of this number had perfect papers. The words "buried" and "handkerchief" rated high in the "frequency wrong" column.

GROUP B
Test Results for Wednesday (Sixth Week)
Learning by Listening Method

Test Results for Wednesday (Sixth Week)																														Freq.	Correct
Learning by Listening Method																														Freq.	Wrong
Words (25)	Students																														
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56			
subject	W										W						W	W				W	W						22	6	
marry																			W										27	1	
worry									W											W		W							25	3	
fry																													28	0	
empty									W		W						W					W				W			23	5	
buried						W			W		W						W	W	W	W		W	W			W	W		17	11	
carried						W											W			W	W		W						23	5	
tried									W						W		W	W											24	4	
studying	W			W							W							W	W			W	W						21	7	
paying											W						W												26	2	
heavy									W						W		W					W							24	4	
sleepy									W								W	W			W							W	23	5	
cloudy									W								W	W									W		24	4	
enjoyed																								W					27	1	
stayed																	W			W	W						W		24	4	
enjoying																													28	0	
passing																						W							27	1	
using							W															W		W					25	3	
thanking																	W												27	1	
wedding									W														W						26	2	
good-bye									W																				27	1	
baseball																	W												27	1	
sake									W								W	W											25	3	
airplane									W		W						W						W						24	4	
handkerchief									W		W				W		W			W	W	W				W			20	8	
Correct	25	23	25	24	25	22	25	25	13	25	25	18	25	25	22	25	10	18	22	20	18	18	19	24	23	21	25	24	614		
Wrong	0	2	0	1	0	3	0	0	12	0	0	7	0	0	3	0	15	7	3	5	7	7	6	1	2	4	0	1	86		

SUMMARY

Test Results

Wednesday, Sixth Week

Group B

This score was the highest of all Wednesday results with 614 words being spelled correctly. An accuracy rating of 87.7 per cent is a remarkable showing for a mid-week test. This is indicated by eleven students with perfect scores, and ten who had twenty or more correct. Student Forty bettered his score from fourteen on Monday to twenty on Friday. The scores of Students Forty-Two and Forty-Four showed consistent growth from Monday to Wednesday. The only word causing difficulty was "buried" with eleven students misspelling it.

GROUP B
Test Results for Friday (Sixth Week)
Learning by Listening Method

Learning by Listening Method																														Freq.	Correct	Freq.	Wrong
Words (25)	Students																																
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56					
subject	W								W			W					W	W	W	W		W	W			W			18	10			
marry																													28	0			
worry									W													W							26	2			
fry																													28	0			
empty	W								W								W	W			W	W							22	6			
buried		W							W			W					W				W	W	W						21	7			
carried	W								W								W			W		W							23	5			
tried		W															W	W					W			W			23	5			
studying																	W	W	W	W	W	W							22	6			
paying												W					W												26	2			
heavy	W								W								W			W		W							23	5			
sleepy									W								W	W											25	3			
cloudy									W								W												26	2			
enjoyed									W																W				26	2			
stayed									W			W					W			W									24	4			
enjoying																			W		W				W				25	3			
passing																				W						W			27	1			
using		W																		W			W						25	3			
thanking																	W												27	1			
wedding									W													W	W						25	3			
good-bye																													28	0			
baseball																						W							27	1			
sake																	W	W											26	2			
airplane									W								W	W											25	3			
handkerchief	W								W								W			W	W	W	W					21	7				
Correct	20	22	25	25	25	25	25	25	12	25	25	21	25	25	25	25	10	18	22	17	20	15	19	25	23	23	25	25	617				
Wrong	5	3	0	0	0	0	0	0	13	0	0	4	0	0	0	0	15	7	3	8	5	10	6	0	2	2	0	0	83				

SUMMARY

Final Test Results

Friday, Sixth Week

Group B

The final test results of the study was in keeping with the consistent growth made by the students throughout the six weeks period. The score for this Friday was 617, which is 88.1 per cent spelling accuracy. When twenty-one students out of twenty-eight make scores of twenty or better it is evident that the method used in attaining these results is worth further study. The students who made the fifteen perfect scores, along with the others, is further proof that "learning by listening" is more than an idea and could very profitably be put to use by those interested in bettering the spelling achievement of their students.

The development made during the week was:

	<u>Correct</u>	<u>Per cent Correct</u>
Monday	558	79.7
Wednesday	614	87.7
Friday	617	88.1

Chapter III

SUMMARY AND CONCLUSIONS

Purpose of the Study

The purpose of this study was to determine the amount of spelling growth made by children in two distinct teaching procedures. The procedures were "learning of spelling by the pre-test method," and "learning of spelling by listening." It was believed that by using two distinctly different methods of teaching spelling that more information regarding the growth made by children in learning to spell would be available. Also there would be an opportunity to compare the results of "learning spelling by the pre-test method" with the results of "learning spelling by listening." In attempting to measure this growth in spelling all possible variables were controlled as closely as conditions allowed. Although no attempt was made to segregate the students according to ability they were very similar in this respect.

The treatment of the teaching of spelling has an interesting history and goes back to at least the time of the NEW ENGLAND PRIMER which appeared around 1700. This book was predominantly religious in content and did not set up a definite program in the teaching of spelling. Its contribution lay in the fact that it drew attention to the necessity of spelling in the curriculum. Noah Webster's "blue-backed" speller, published in 1783, inaugurated a systematic attack upon the teaching of spelling. Although no scientific evidence was used to determine the selection of words, the number of

words to be taught, or the proper grade level, it was the beginning of many studies to determine a more scientific approach to the teaching of spelling.

From 1900 to 1910 spelling gained little from the standpoint of a school subject. It was taught in correlation and integration with other subjects of the curriculum, and then only in an incidental manner. Starting at about 1910 and continuing up to the present time, a great amount of research has been completed in the area of teaching of spelling. This research has created new viewpoints concerning the teaching of spelling and has given it prominence in the curriculum. Although modern authorities differ in degree with respect to the method of teaching spelling, they are agreed on certain general principles. These principles include: (1) spelling should be taught with a direct and systematic attack upon the words to be learned, (2) the time spent for the teaching of spelling should not exceed fifteen minutes a day, (3) the number of words in any one lesson should not be large, and (4) the teaching of rules should not be over-emphasized.

Research has shown that the teaching of spelling by a systematic and direct attack results in a greater spelling accuracy than that which is attained through the incidental method of teaching spelling. The main objective for teaching spelling is to enable the student to spell the words which they need in actual writing situations.

Procedure

This study included two sections of fifth grade pupils, with twenty-eight students in each section. No attempt was made to group

or segregate these students according to their intelligence quotients, although the data available in the central offices indicated that these students were very similar in ability. The range of the intelligence quotients for pupils in "Group A" ranged from 71 to 122, with an average intelligence quotient of 99.7. The range of intelligence quotients for students in "Group B" ranged from 65 to 122, with an average intelligence quotient of 96.7.

The students in "Group A" followed the test-study-test method of learning spelling. The procedure used with this group was:

- I. Monday: The teacher distributed ditto sheets which contained the spelling words for that week. Each week's lesson consisted of twenty-five words, five of which were review words. As the students observed the ditto sheets, the teacher pronounced each word and the student re-pronounced each word in unison. This was followed by a pre-test. The teacher pronounced each word, used each word in a sentence, and then pronounced the word for the second time. At the second pronunciation the students wrote the word. The pupils corrected their own papers as the teacher spelled the words orally. The remainder of the period was spent in studying words missed in the pre-test.
- II. Tuesday: Students used the entire period to study on those words which they missed in the pre-test of Monday. The study procedure involved the actual writing of these words.
- III. Wednesday: On Wednesday a second test was administered in which all children participated. The words were again corrected by the students, and the remaining time used for study.
- IV. Thursday: The entire period was utilized in studying the words missed on Wednesday. The study procedure involved the actual writing of these words. Those children who made a perfect score on Wednesday were excused from studying on Thursday.
- V. Friday: Each student participated in the final test of the week's lesson. Each child corrected his paper as the teacher spelled the words verbally. The teacher rechecked for accuracy of scores.

Each week's lesson consisted of twenty new words and five review words.

Procedure for "Group B" varied considerably from the procedure followed by students in "Group A." The growth in spelling for "Group B" was accomplished through the use of "learning spelling by listening." This method made complete use of the auditory approach as a condition of learning. There were no systematic attempts on the part of the students to actually engage in studying the words, except that which was incidental to the correction of tests administered on Monday, Wednesday, and Friday. On Monday the pupils took a test over the week's lesson without seeing or studying the words. The instructor pronounced each word, used each word in a sentence, pronounced it again and on the second pronunciation the students wrote the word. Upon the completion of the week's lesson the students scored their own paper as the teacher spelled the words orally. Any learning done by the students was accomplished during this interim of time when the instructor spelled the words orally. Immediately after the words were scored, a re-test of the same lesson was again given to the students. The purpose of this re-test was to measure the growth students made by listening to the correct spelling of words. The same procedure was used on Monday, Wednesday, and Friday of each week of the duration of the study which continued over a period of six weeks.

No statistical correlations or analysis of variance were completed for this study. It was shown by previous research that there was statistical significance in favor of learning spelling by listening.

This study attempted to make it possible to follow closely the growth made by each child who participated in the study. This is not always possible when the results are given only in statistical computations.

The results of the two spelling procedures were organized into tabular forms. These tables were constructed to show the scores pupils made on the test for each Monday, Wednesday, and Friday for each of the six weeks. The growth of each student is indicated by perusing the tables for each week. Likewise those words which had a high degree of spelling difficulty are apparent. The "spelling index" was used to compute the growth made for each week. This "spelling index" presents a per cent of accuracy for all of the students.

The data for the students of "Group A" are presented first. A short summary follows each table constructed from the scores made on each of the tests. This data is then followed with information gathered for the pupils of "Group B." Comparisons of scores of the two groups are then shown. Organizing the data in this fashion made it possible to determine at a glance several significant factors concerning the study. The first and probably the most important is the amount of growth each student made from one test to the subsequent test. Second is that it is possible to determine the per cent of words spelled correctly by the group for each test given throughout the interim of this study.

Findings of the Study

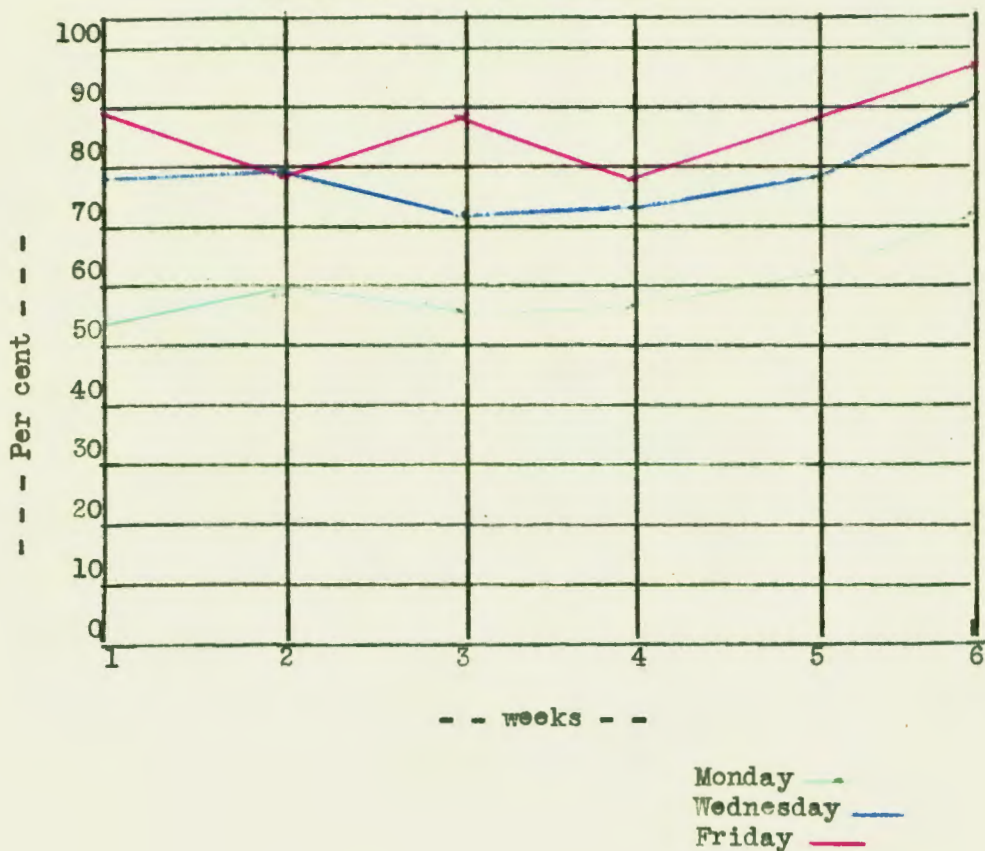
The results of the study indicate that the students in "Group A" who followed the test-study-test method made considerable gain

from Monday through Friday. The results of the scores for Monday and Friday for each of the six weeks are listed below:

	<u>Monday</u>	<u>Friday</u>	<u>Words Gain</u>	<u>Per Cent Gain</u>
First Week	379	625	246	35.1
Second Week	421	557	136	19.5
Third Week	388	620	232	33.2
Fourth Week	398	552	154	22.0
Fifth Week	444	605	161	23.0
Sixth Week	517	668	151	21.5

The "spelling index" for each of the tests for "Group A" is given below.

Spelling Index for Group A

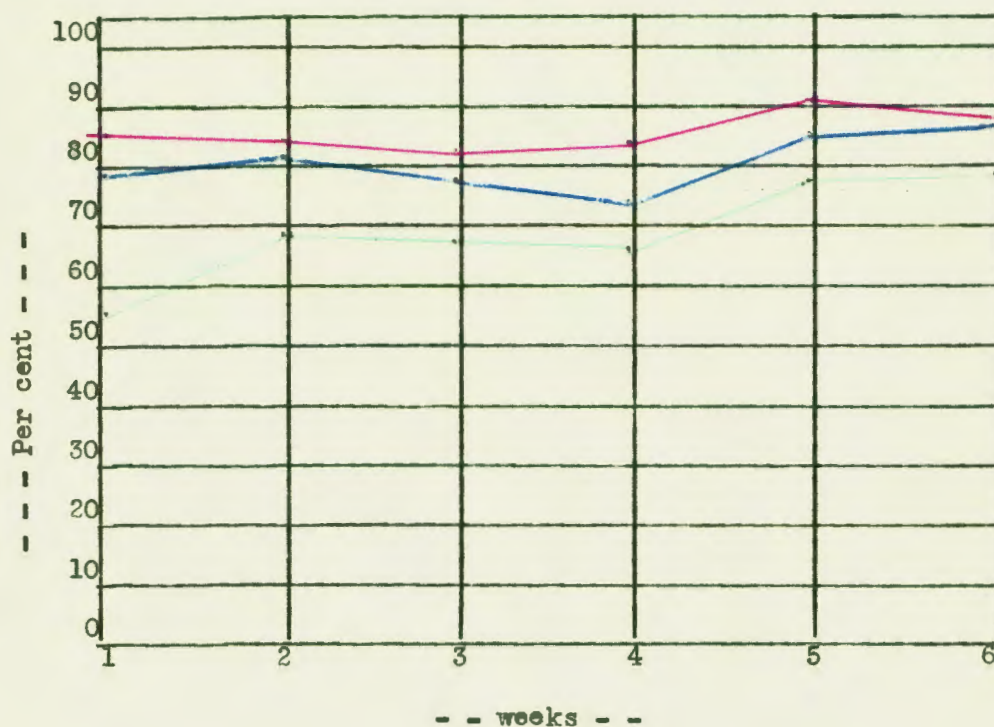


The results of the scores for students in "Group B" indicate the following results:

	<u>Monday</u>	<u>Friday</u>	<u>Words Gain</u>	<u>Per Cent Gain</u>
First Week	389	595	206	29.4
Second Week	483	584	101	15.9
Third Week	471	585	114	16.3
Fourth Week	467	591	124	17.7
Fifth Week	548	634	86	11.8
Sixth Week	558	617	59	8.4

The "spelling index" for each of the tests for "Group B" is given below.

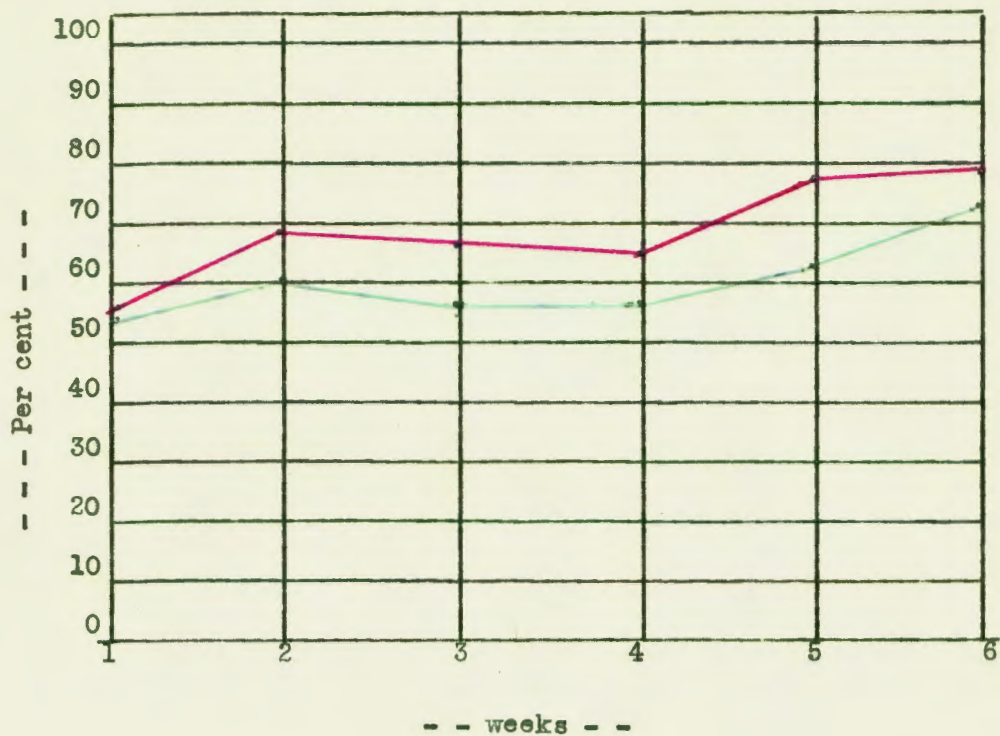
Spelling Index for Group B



Monday —
 Wednesday —
 Friday —

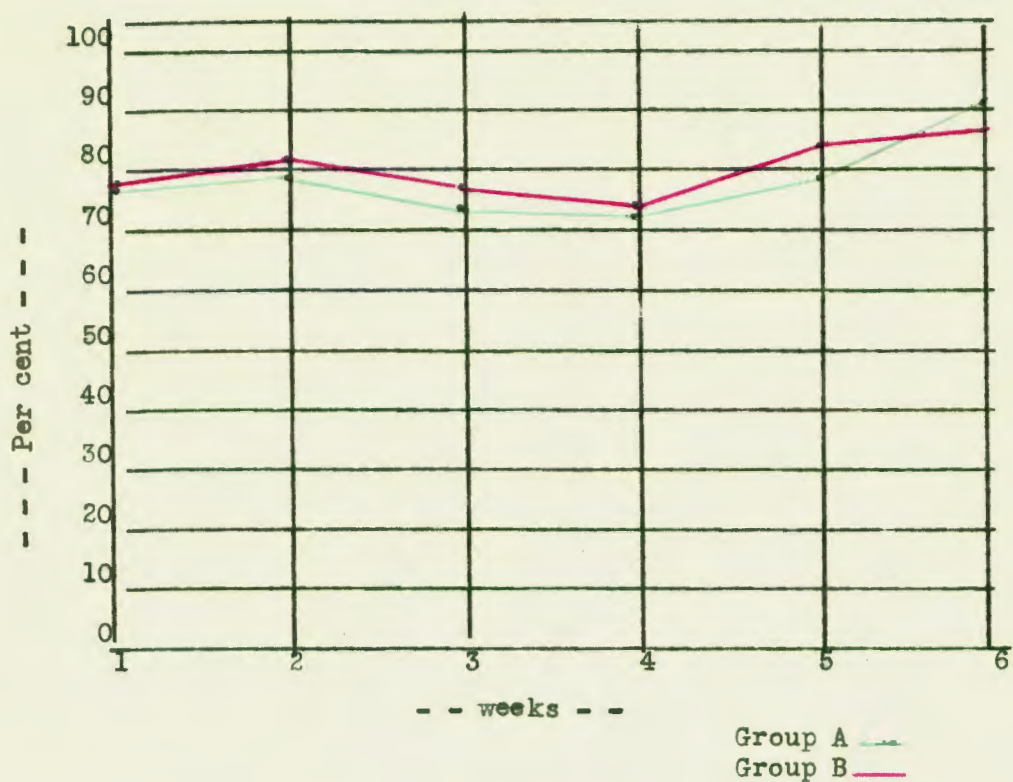
Comparisons of the spelling scores for "Group A" and "Group B" for Monday, Wednesday, and Friday are shown in the following tables.

Comparison of Spelling Scores for
Group A and Group B
For Monday Results

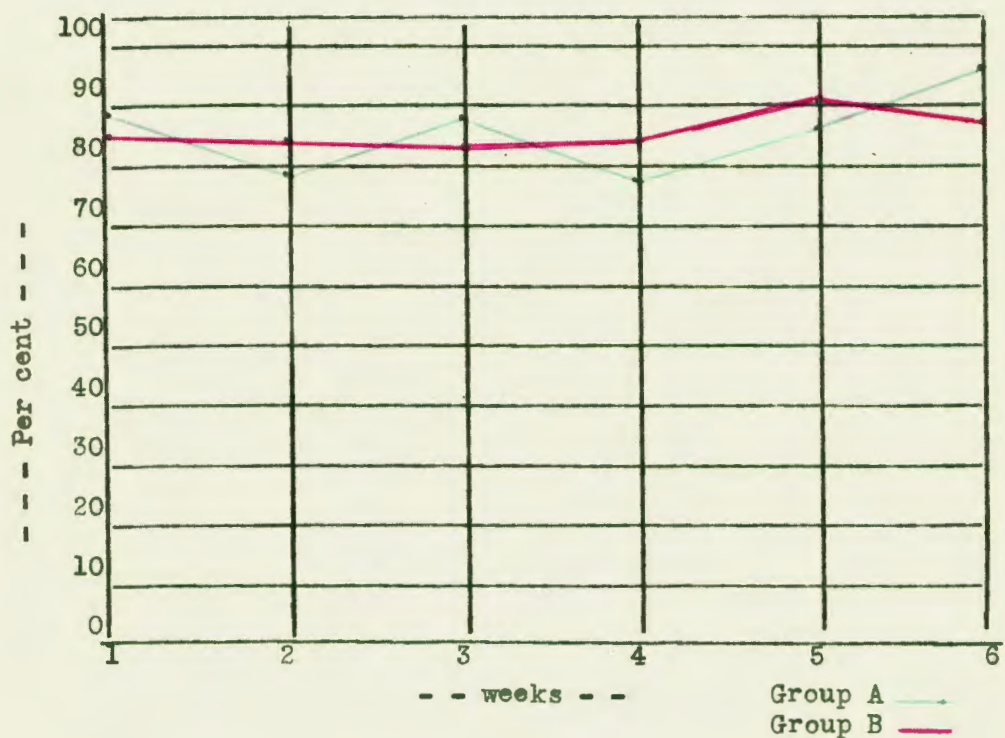


Group A —
Group B —

Comparison of Spelling Scores for Group A and Group B
For Wednesday Results

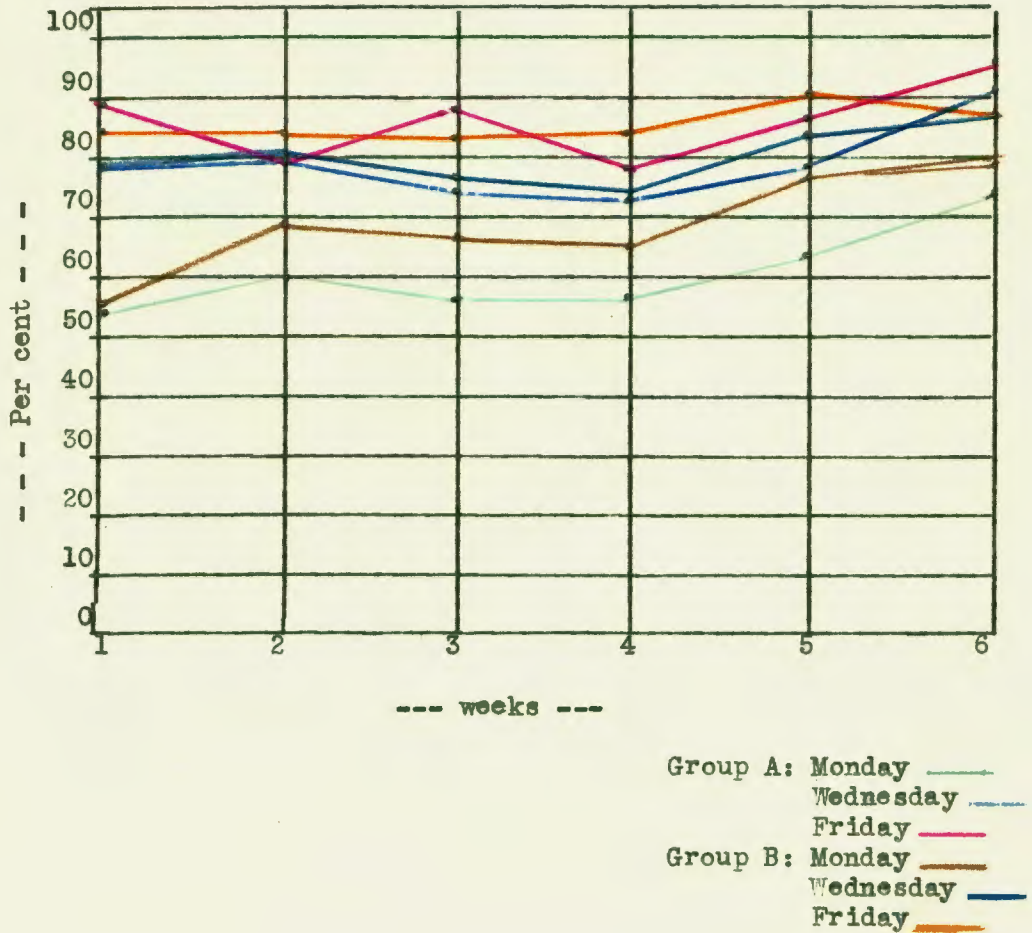


Comparison of Spelling Scores for Group A and Group B
For Friday Results



A comparison showing the results of the scores for students in "Group A" and "Group B" for each of the test results are indicated below. These scores are given in terms of per cent accuracy.

Comparison of Scores for All Tests
for Both Groups



The final results indicate that the total scores of the words correct for both groups were practically identical. But it must be remembered that the students in "Group B" had no opportunity to study their words, while the students in "Group A" followed regular study procedures. The "spelling index" which indicates per cent of accuracy was 86.3 for "Group A" and 86. for "Group B." It is likely that the corrected test pursued by "Group B" counted for 86 per cent of the accuracy.

Educational Implications

- A. A high degree of spelling accuracy can be maintained if a systematic and direct method of teaching spelling is used.
- B. The corrected test alone is sufficient for mastery or near mastery of the typical spelling lesson by the upper third of the class.
- C. The corrected test appears to be an important factor contributing to achievement in spelling.
- D. The time spent for spelling should be equally distributed and should not exceed seventy-five minutes a week at the most.
- E. A fairly high degree of accuracy can probably be better maintained by using twenty or less words per week.
- F. There is less loss of time for the bright students when using the "learning by listening" method.
- G. Since students know there is no opportunity for studying in the "learning by listening" method, there is a tendency for them to improve their listening acuity and attention.
- H. The "learning by listening" procedure evidences an increased spelling consciousness, which in turn makes for increased motivation.
- I. After giving it a fair trial teachers seem to prefer this method of teaching spelling.
- J. That the recall value of the "learning by listening" method is equal to the "test-study-test" method.

Recommendations

- A. That the time allotted for the studying of spelling in excess of seventy-five minutes per week may be spent to better advantage pursuing other academic areas.
- B. That the upper twenty to thirty per cent of the class be excused from part of the tests during each week.
- C. Both teachers and students shall be briefed in the advantages of the "learning by listening" method.
- D. The poorest students in the class should be given less than the normal weeks load.
- E. That since the corrected test has been shown to have significant value in learning to spell, it ought to be utilized in more teaching situations.
- F. That the number of periods be lessened from five periods to three.

Limitations

- A. Only six weeks were devoted to this investigation.
- B. Only fifty-six students participated in this experiment.
- C. There was no matching of individual cases of the two groups.
- D. Complete information on the previous spelling achievement of the subjects of this study was inaccessible.

BIBLIOGRAPHY

Accomb, Allan. A Study of the Psychological Factors in Reading and Spelling. Master's thesis. Boston Univ., 1936.

Andersen, W. N. Determination of a Spelling Vocabulary Based upon Written Correspondence. Univ. of Iowa, Studies in Education, Vol. 2, No. 1, 1921. p. 66.

Anderson, Marion. "Quality of the Adult Writing Vocabulary." El Eng R 11: 135-38; 1934.

Archer, C. P. "Shall We Teach Spelling by Rule?" El Eng R 7: 61-63; 1930.

Archer, C. P. Transfer of Training in Spelling. Univ. of Iowa, Studies in Education, Vol. 5, No. 5. 1930. p. 63.

Artley, D. "Principles Applying to the Improvement of Spelling Ability." The Elementary School Journal. November, 1948.

Atkins, Samuel. The Learning Indices and Study Methods of School Children in Spelling. Master's thesis. Univ. of Minnesota, 1930.

Ayer, F. C. A Study of High School Spelling Vocabulary. Austin, Tex.: The Steck Co., 1945. p. 128.

Betts, E. A. "Inter-relationship of Reading and Spelling." El Eng R 22: 13-23; 1945.

Betts, E. A. Spelling Vocabulary Study. American Bk. 1940. p. 72.

Bills, A. G. General Experimental Psychology. Longmans, 1934. p. 620.

Breed, F. S. How to Teach Spelling. Dansville, N. Y.: F. A. Owen Publishing Co., 1930. p. 177.

Brittain, Frances J., and Fitzgerald, J. A. "Vocabulary and Spelling Errors of Second-Grade Children's Themes." El Eng R 19: 43-50; 1942.

Brody, D. S. "A Comparative Study of Different Forms of Spelling Tests." J Ed. Psychol. 35: 129-44; 1944.

Brueckner, L. J., and Melby, E. O. Diagnostic and Remedial Teaching. Houghton, 1931. Ch. X.

Burnham, W. H. "The Hygiene and Psychology of Spelling." Pedagog Sem 13: 474-501; 1906.

Coast, Alice B. The Phonetic Background in Reading and Spelling in the First Two Grades and Its Influence upon Spelling in the Third Grade. Master's thesis. Univ. of Iowa, 1927.

Columba, Sister M. A Study of Interests and Their Relations to Other Factors of Achievement in Elementary School Subjects. Catholic University of America, Educational Research Bulletin, Vol. I. No. 7. 1926. p. 35.

Cook, W. W. The Measurement of General Spelling Ability Involving Controlled Comparisons between Techniques. Univ. of Iowa, Studies in Education, Vol. 6, No. 6. 1932. p. 112.

Cooper, E. J. A Spelling List Based upon Pupils' Misspellings. Master's thesis. Univ. of Minnesota, 1927.

Cubberley, E. P. Public Education in the U. S. Boston, Houghton Mifflin, 1934. pp. 41-47.

Cutright, Prudence. "Script-Print and Beginning Reading and Spelling." El Eng R 13: 139-41, 160; 1936.

Davis, Georgia. "Remedial Work in Spelling." El Sch J 27: 615-26; 1927.

Dillon, Bessie. The Writing Vocabulary of Fifth, Sixth, Seventh, and Eighth Grade Pupils. Master's thesis. Univ. of Chicago, 1932.

Duboff, Sarah. Spelling Errors in Relation to Rules. Thesis, Teachers College, Greeley, Colorado, 1932.

Evans, Anna. Validation of Spelling Scales--A Study of the Social Value of Words Contained in the Tests and Scales. Master's thesis. Univ. of Iowa, 1927.

Evans, Edith. The Significance of Initial Errors in Spelling. Master's thesis. Univ. of Iowa, 1927.

Fairhurst, Susie S. "Psychological Analysis and Educational Method in Spelling." Report, British Association for the Advancement of Science, Vol. 83. 1913. pp. 302-04.

Farrar, Joe. "Are Spelling Needs Local?" El Eng R 7: 143-45; 1930.

Fernald, Grace. "Report of Experimental Work with Poor Spellers and Non-Readers, with Applications to Normal Children." In Terman, L. M. and Others. Intelligence Tests and School Reorganization. World Bk., 1923. p. 103-09.

Fitzgerald, J. A. Letters Written Outside the School by Children of the Fourth, Fifth, and Sixth Grades: A Study of Vocabulary, Spelling Errors, and Situations. Univ. of Iowa, Studies in Education, Vol. 9, No. 1. 1934. p. 7-50.

Fitzgerald, J. A. "Words Misspelled Most Frequently by Children of the Fourth, Fifth, and Sixth Grade Levels in Life Outside the School." J Ed Res 26: 213-18; 1932.

Fitzgerald, J. A. "The Vocabulary and Spelling Errors of Third-Grade Children's Life-Letters." El Sch J 38: 518-27; 1938.

Floyd, Hazel. Cases of Spelling Disability: Their Diagnosis and Treatment. Master's thesis. Univ. of Chicago, 1927.

Foran, T. G. The Psychology and Teaching of Spelling. Catholic Education Press, 1934. p. 234.

Fox, W. H., and Eaton, M. T. Analysis of the Spelling Proficiency of 82,833 Pupils in Grades 2 to 8 in 3,547 Teaching Units of the City Schools in Indiana. Indiana Univ., Bulletin of the School of Education, Vol. 22, No. 2. 1946. p. 50.

Francis, Mary E. A Survey to Determine the Writing Vocabulary and Spelling Ability in Grades Two to Seven Inclusive. Master's thesis. Univ. of Texas, 1934.

Freeman, F. N. "Survey of Manuscript Writing in the Public Schools." El Sch J 46: 375-80; 1946.

Fry, Rhey. The School Vocabulary of First Grade Children. Master's thesis. Univ. of Oklahoma, 1931.

Gates, A. I. "An Experimental Comparison of the Study-Test and Test-Study Methods in Spelling." J Ed Psychol 22: 1-19; 1931.

Gates, A. I. A List of Spelling Difficulties in 3876 Words. Teachers Col., 1937. p. 166.

Gates, A. I. "A Study of the Role of Visual Perception, Intelligence, and Certain Associative Processes in Reading and Spelling." J Ed Psychol 17: 433-45; 1926.

Gates, A. I., and Chase Esther H. "Methods and Theories of Learning to Spell Tested by Studies of Deaf Children." J Ed Psychol 17: 289-300; 1926.

Gates, A. I., and Others. Educational Psychology. Macmillan, 1942. Ch. XII.

Gates, A. I., and Russell, D. H. Diagnostic and Remedial Spelling Manual. Teachers Col., 1937. p. 44.

Gilbert, L. C. "Effect of Reading on Spelling in the Ninth Grade." Sch R 42: 197-204; 1934.

Gilbert, L. C. "Effect of Reading on Spelling in the Secondary Schools." Calif Q Soc Ed 9: 269-75; 1934.

Gilbert, L. C. "Experimental Investigation of a Flash-Card Method of Teaching Spelling." El Sch J 32: 337-51; 1932.

Gilbert, L. C. An Experimental Investigation of Eye Movements in Learning to Spell Words. Psychological Monographs, Vol. 43, No. 3. 1932. p. 81.

Gilbert, L. C. "A Genetic Study of Growth in Perceptual Habits in Spelling." El Sch J 40: 346-57; 1940.

Gilbert, L. C. "A Study of the Effect of Reading on Spelling." J Ed Res 28: 570-76; 1935.

Gilbert, L. C., and Gilbert, Doris W. "The Improvement of Spelling Through Reading." J Ed Res 37: 458-63; 1944.

Gilbert, L. C., and Gilbert, Doris W. Training for Speed and Accuracy of Visual Perception in Learning to Spell. Univ. of California Publications in Education, Vol. 7, No. 5, 1942. p. 351-426.

Greene, H. A.; Jorgensen, A. N.; Gerberich, J. R. Measurement and Evaluation in the Elementary School. Longmans, 1942. p. 373-79.

Greenwood, Forest. A Study of Spelling Difficulty on a High School Senior Level. Master's thesis. Univ. of Iowa, 1929.

Guiler, W. S. "Primary-Grade Words Frequently Misspelled by Higher-Grade Pupils." El Sch J 44: 295-300; 1944.

Guiler, W. S., and Lease, G. A. "An Experimental Study of Methods of Instruction in Spelling." El Sch J 43: 234-38; 1942.

Harder, K. C. "The Relative Efficiency of the 'Separate' and 'Together' Methods of Teaching Homonyms." J Exp Ed 6: 7-23; 1937.

Hartmann, G. W. "The Relative Influence of Visual and Auditory Factors in Spelling Ability." J Ed Psychol 22: 691-99; 1931.

Hawley, W. E., and Gallup, Jackson. "The 'List' versus the 'Sentence' Method of Teaching Spelling." J Ed Res 5: 306-10; 1922.

Hays, Martha L. The Spelling Ability of Normal Training Students in High School. Master's thesis. Univ. of Iowa, 1930.

Hemmon, V. A. C. "The Relation between Mode of Presentation and Retention." Psychol R 19: 79-96; 1912.

Hildreth, Gertrude. "Spelling as a Language Tool." The Elementary School Journal. September, 1947.

Hildreth, Gertrude. "Word Frequency as a Factor in Learning to Read and Spell." Journal of Educational Research. February, 1948.

Horn, Ernest. A Basic Writing Vocabulary. Univ. of Iowa Monographs in Education, First Series, No. 4. 1926. p. 225.

Horn, Ernest. "The Child's Early Experience with the Letter A." J Ed Psychol 20: 161-68; 1929.

Horn, Ernest. "The Incidental Teaching of Spelling." El Eng R 14: 3-5, 21; 1937.

Horn, E. "Spelling" Encyclopedia of Educational Research. New York, Macmillan, Company, 1950, 1247-64.

Horn, T. D. "The Effect of the Corrected Test on Learning to Spell." El Sch J 47: 277-85; 1947.

Hudson, J. S. & Tolar, Lola. "Instruction in Auditory and Visual Discrimination as Means of Improving Spelling." The Elementary School Journal. April, 1949.

Iowa Every-Pupil Tests of Basic Skills. (E. F. Lindquist, General Ed.) Iowa City: Univ. of Iowa. Published Annually.

Jones, W. F. Concrete Investigation of the Material of English Spelling. Univ. of South Dakota, 1915. p. 31.

Kilzer, L. R. "The Test-Study Method versus the Study-Test Method in Teaching Spelling." Sch R 34: 521-25; 1926.

Krueger, W. C. F. "The Effect of Overlearning on Retention." J Exp Psychol 12: 71-78; 1929.

Kyte, George, C. "When Spelling Has Been Mastered in the Elementary School." Journal of Educational Research. September, 1948, p. 54.

Lounsbury, T. R. English Spelling and Spelling Reform. Harper, 1909, p. 356.

McGeoch, J. A. The Psychology of Human Learning. Longmans, 1942. p. 633.

McKee, Paul. Language in the Elementary School. Houghton, 1939. p. 329-430.

Martin, Sister Mary Elizabeth. A Comparison of Sixth Grade Children's Ability to Spell Studied and Unstudied Words. Master's thesis. Univ. of Iowa, 1931.

Mendenhall, J. E. An Analysis of Spelling Errors; A Study of Factors Associated with Word Difficulty. Teachers Col., 1930. p. 65.

Mitchell, P. S. The Writing Vocabulary of Children in the Southern States. Master's thesis. Univ. of Chicago, 1932.

Morton, Myrtle G. A Study of the Preparation of Normal Training Students for Teaching Certain Basic Skills. Master's thesis. Univ. of Iowa, 1936.

Murray, Elsie. "The Spelling Ability of College Students." J Ed Psychol 10: 357-76; 1919.

Nichols, Augusta, M. "The Analysis and Correction of Spelling Difficulties." The Elementary School Journal. November, 1949.

Nolde, Ellenjarden. "Outline for a Possible Consideration of the Psychological Factors Involved in Spelling." The Journal of Educational Psychology. February, 1948.

Palmer, Mary E. "Abilities Possessed by the Good Speller." El Eng R 1930.

Peake, Nellie L. "Relation Between Spelling Ability and Reading Ability." J Exp Ed 1940.

Perkins, N. L. "Value of Distributed Repetitions in Rote Learning." Brit J Psychol 1914.

Phelan, Sister M. B. Visual Perception in Relation to Variance in Reading and Spelling. Doctor's thesis. Catholic Univ. of America, 1940.

Pintner, Rudolf; Eisenson, Jon; Stanton, Mildred. The Psychology of the Physically Handicapped. Crofts, 1945.

Prehm, E. A. Grouping of Words According to Structure and Sound as a Factor in the Teaching of Spelling. Master's thesis. Univ. of Iowa, 1929.

Prehm, Hazel. A Year's Growth in Spelling Ability in Grade Four. Master's thesis. Univ. of Iowa, 1930.

Rinsland, H. D. A Basic Vocabulary of Elementary School Children. Macmillan, 1945.

Ruch, T. C. "Factors Influencing the Relative Economy of Massed and Distributed Practice in Learning." Psychol R 1928.

Russell, D. H. Characteristics of Good and Poor Spellers. Contributions to Education, No. 727. Teachers Col., 1937.

Russell, D. H. "A Diagnostic Study of Spelling Readiness." J Ed Res 1943.

Russell, D. H. "Spelling Ability in Relation to Reading and Vocabulary Achievement." El Eng R 1946.

Sand, H. J. "An Evaluation of the Effects of Marks as Incentives to Pupil Growth in Spelling Ability and of the Comparative Values of Equated Scales and Informal Tests as Measurements of the Progress." J Ed Res 1938.

Schonell, F. J. Backwardness in the Basic Subjects. Oliver and Boyd, 1942.

Seashore, R. H. "How Many Words Do Children Know?" The Packet Health's Service Bulletin.

Serenius, C. A. An Analytical and Empirical Study of Certain Techniques Employed in Vocabulary Testing. Doctor's Thesis. Univ. of Iowa. 1926.

"Sixteen Spelling Scales." Teach Col Rec 1920.

Smith, J. H. The Vocabulary of Children Based on an Investigation of Written Papers Selected from Pupils' Daily Work in Various Subjects of the Curriculum. State Teachers Colleges, Oshkosh, Wisconsin, 1935.

Smith, Madorah E. An Investigation of the Development of the Sentence and the Extent of Vocabulary in Young Children. Univ. of Iowa, 1926.

Spache, George. "A Critical Analysis of Various Methods of Classifying Spelling Errors, I." J Ed Psychol 1940.

Spache, George. "Spelling Disability Correlates II--Factors That May Be Related to Spelling Disability." J Ed Res 1941.

Stoddard, Coral M. The Effect of the Pronunciation Exercise on Spelling. Master's thesis. Univ. of Iowa, 1929.

Stroud, J. B. Psychology in Education. Longmans, 1946.

Stutzman, G. C. The Relation of Visual Impression in General Reading to Spelling Performance. Master's thesis. Univ. of Iowa, 1923.

Thompson, R. S. The Effectiveness of Modern Spelling Instruction. Contributions to Education, Teachers College, 1930.

Tidyman, W. F. The Teaching of Spelling. New York, World Book Company, 1922.

Tireman, L. S. Determination of the Ability of a Group of Sixth, Seventh, and Eighth Grade Pupils to Proofread Their Written Work for Errors in Spelling. Master's thesis. Univ. of Iowa. 1924.

Tireman, L. S. Value of Marking Hard Spots in Spelling. Univ. of Iowa, Studies in Education. 1930.

Trent, Bess M. Vocabulary of First Grade Children Outside of School. Master's thesis. Univ. of Oklahoma, 1931.

Troutt, Madge M. Development of the Writing Vocabulary of Children. Master's thesis. Univ. of Chicago, 1931.

Tyler, I. K. Spelling as a Secondary Learning. Contributions to Education, No. 781. 1939.

Von Eschen, Clarence. Teacher Performance on the Iowa Every-Pupil Test of Basic Skills in Reading and Language for 1936. Master's thesis. Univ. of Iowa, 1936.

Wesman, Alexander. "The Usefulness of Correctly Spelled Words in a Spelling Test." J Ed Psychol 1946.

Whitehead, L. G. "A Study of Visual and Aural Memory Processes." Psychol R 1896.

Williamson, E. G. "Mental Abilities Related to Learning to Spell." Psychol B 1933.

Williamson, E. G. "The Relation of Learning to Spelling Ability." J Ed Psychol 1933.

Winch, W. H. "Experimental Researches on Learning to Spell." Journal of Educational Psychology. 1913.